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BIBLIOGRAPHIC INDEX OF USSR WORKS ON CORROSION

AND PROTECTION OF MATERIALS

by V. V. Krasnoyarskiy and P. M. Reznik

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BIBLIOGRAPHIC INDEX OF USSR WORKS ON CORROSION
AND PROTECTION OF MATERIALS

Following is the translation of portions of the Russian-language book, Korroziya i zashchita materialov -- Bibliografiya otechestvennoy literatury za period s 1917 po 1959 gody (Corrosion and Protection of Materials -- A Bibliography of USSR Literature for the Period 1917-1959), compiled by V.V. Krasnoyarskiy and F. M. Reznik, published by Mashgiz, the State Scientific-Technical Publishing House for Machine-building Literature, Moscow, 1961, 275 pages. Source page numbers of the portions translated are indicated in the Table of Contents below.

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LIST
OF ABBREVIATED AND COMPLETE TITLES
OF PERIODICAL AND CONTINUING PUBLICATIONS

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Aviatsiya i khimiya	Aviatsiya i khimiya	Aviation and Chemistry
Avtobronetankovyy Zh.	Avtobronetankovyy Zhurnal	Armored Transport Magazine
Avtogen. delo	Avtogennoye delo	Autogenous Operations
Avtomat. svarka	Avtomaticheskaya svarka	Automatic Welding
Avtomob. dorogi	Avtomobil'nyye dorogi	Highways
Avtotrakt. delo	Avtotraktornoye delo	Tractors
Avtomob. i traktornaya prom-st'	Avtomobil'naya i traktornaya promyshlennost'	Automobile and Tractor Industry
Avtomob. prom-st'	Avtomobil'naya promyshlennost'	Automobile Industry
Azerb. khim. zh.	Azerbaydzhanskiy khimicheskiy zhurnal	Azerbaydzhan Chemical Magazine
Azerb. neft. kh-vo	Azerbaydzhanskoye neftyanoye khoz-yaystvo	Azerbaydzhan Oil Industry
Anilokras. prom-st'	Anilokrasochnaya promyshlennost'	Aniline Dye Industry
Artiller. zh.	Artilleriyskiy zhurnal	Artillery Magazine
Atomnaya energiya	Atomnaya energiya	Atomic Energy

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Beton i zhelezo-beton	Beton i zhelezo-beton	Concrete and Reinforced Concrete
Brit. prom-st' i tekhn.	Britanskaya promyshlennost' i tekhnika	British Industry and Technology
Brodil'n. prom-st'	Brodil'naya promyshlennost'	Fermentation Industry
Bum. prom-st'	Bumazhnaya promyshlennost'	Paper Industry
Byull. Vsesoyuzn. khim. o-va	Byulleten' vsesoyuznogo khimicheskogo obshchestva	Bulletin of the All-Union Chemical Society
Byull. kollektiva inzh. teplotekhn. in-ta	Byulleten' kollektiva inzhenerov teplotekhnicheskogo instituta	Bulletin of the Engineers Group of the Heat Engineering Institute
Byull. neft. geofiziki	Byulleten' neftyanoy geofiziki	Bulletin of Petroleum Geophysics
Byull. stroit. tekhn.	Byulleten' stroitel'noy tekhniki	Bulletin of Construction Equipment
Vestn. AN SSSR	Vestnik Akademii nauk SSSR	Herald of the USSR Academy of Sciences
Vest. AN Kazakh. SSSR	Vestnik Akademii nauk Kazakhskoy SSSR	Herald of the Kazakh SSR Academy of Sciences
Vest. vozd. flota	Vestnik vozdushnogo flota	Air Force Herald
Vest. Vsesoyuzn. n.-i. in-ta zh.-d. transporta	Vestnik Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta	Herald of the All-Union Research Institute of Rail Transport

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Vestn. vyssh. shkoly	Vestnik vysshey shkoly	University Herald
Vestn. inzh. i tekhn.	Vestnik inzhenerov i tekhnikov	Engineers and Technologists Herald
Vestn. kom-ta po izobret.	Vestnik komiteta po izobreteniyam	Herald of Committee on Inventions
Vestn. Leningr. un-ta	Vestnik Leningradskogo universiteta	Leningrad University Herald
Vestn. mashinostroyeniya	Vestnik mashinostroyeniya	Machine Construction Herald
Vestn. metallprom-sti	Vestnik metallo-promyshlennosti	Metal Industry Herald
Vestn. Mosk. un-ta	Vestnik Moskovskogo universiteta	Moscow University Herald
Vestn. standartizatsii	Vestnik standartizatsii	Standardization Herald
Vestn. khim. o-va im. D. I. Mendeleeva	Vestnik khimicheskogo obshchestva im. D. I. Mendeleeva	Herald of the imeni D. I. Mendeleev Chemical Society
Vestn. elektro-prom-sti	Vestnik elektro-promyshlennosti	Herald of the Electrical Industry
Vinodeliye i vinogradarstvo SSSR	Vinodeliye i vinogradarstvo SSSR	Viniculture and Viticulture in the USSR
Vodn. transport	Vodnyy transport	Water Transport
Vodosnabzh. i san. tekhn.	Vodosnabzheniye i sanitarnaya tekhnika	Water Supply and Sanitation Equipment
Vopr. kommun. kh-va	Voprosy kommunalnogo khozyaystva	Questions of Communal Economy
Vost. neft'	Vostochnaya neft'	Eastern Oil

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
VUGI	Vsesoyuznyy ugol'- nyy institut	All-Union Coal Institute
Gazovaya prom-st'	Gazovaya promysh- lennost'	Gas Industry
Geodeziya i karto- grafiya	Geodeziya i karto- grafiya	Geodesy and Cartography
Gigiyena truda	Gigiyena truda	Industrial Hygiene
Gidroliznaya i leso- khim. prom-st'	Gidroliznaya i lesokhimicheskaya promyshlennost'	Hydrolysis and Wood Chemistry Industry
Gidrotekhn. str-vo	Gidrotekhnicheskoye stroitel'stvo	Hydraulic Engineering Construction
Gor. kh-vo Moskvyy	Gorodskoye khozyaystvo Moskvyy	Moscow Urban Economy
Goryuchiye slantsy	Goryuchiye slantsy	Bituminous Shale
Grazhd. aviatsiya	Grazhdanskaya aviatsiya	Civil Aviation
Grozn. neftyanik	Groznenskiy nef- tyanik	Groznyy Petroleum Miner
Dizelestroyeniye	Dizelestroyeniye	Diesel Engine Constructio
Dokl. AN SSSR	Doklady Akademii nauk SSSR	Reports of USSR Academy of Sciences
Dokl. AN Ukr. SSR	Doklady Akademii nauk Ukr. SSR	Reports of Ukrainian SSR Academy of Sciences
Zhil. kommun. kh-vo	Zhilishchno- kommunal'noye khozyaystvo	Housing and Public Utili- ties
ZH. neorg. khimii	Zhurnal neorgan- icheskoy khimii	Journal of Non-Organic Chemistry
ZH. obshch. khimii	Zhurnal obshchey khimii	Journal of General Chem- istry

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
ZH. prikl. khimii	Zhurnal prikladnoy khimii	Journal of Applied Chemistry
ZH. rezin. prom-sti	Zhurnal rezinovoy promyshlennosti	Journal of the Rubber Goods Industry
ZH. russ. metallurg. o-va	Zhurnal russkogo metallurgicheskogo obshchestva	Journal of the Russian Metallurgical Society
ZHRFKhO	Zhurnal russko-fiziko-khimicheskogo obshchestva	Journal of the Russian Physical Chemistry Society
ZH. tekhn. fiz.	Zhurnal tekhnicheskoy fiziki	Journal of Physics Engineering
ZH. fiz. khimii	Zhurnal fizicheskoy khimii	Journal of Physical Chemistry
ZH. khim. prom-sti	Zhurnal khimicheskoy promyshlennosti	Journal of the Chemical Industry
Za prom. kadry	Za promyshlennyye kadry	For Industrial Staffs
Za torf. industriyu	Za torfyanuyu industriyu	For the Peat Industry
Za ekonomiyu topliva	Za ekonomiyu topliva	For Fuel Economy
Zavodsk. laboratoriya	Zavodskaya laboratoriya	Factory Laboratory
Izv. AN SSSR OTN	Izvestiya Akademii nauk SSSR. Otdeleniye tekhnicheskikh nauk.	News of the USSR Academy of Sciences. Technical Sciences Division
Izv. AN SSSR. OMEN, ser. khim.	Izvestiya Akademii nauk SSSR. Otdeleniye matematicheskikh i yestestvennykh nauk, seriya khimicheskaya	News of the USSR Academy of Sciences. Mathematical and Natural Sciences Division, chemistry series.

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Izv. AN SSSR. OKhN	Izvestiya Akademii nauk SSSR. Otdel- eniye khimicheskikh nauk	News of the USSR Academy of Sciences. Chemical Sciences Division
Izv. AN SSSR. OTN Metallurgiya i toplivo	Izvestiya Akademii nauk SSSR. Otdel- eniye tekhnicheskikh nauk. Metallurgiya i toplivo	News of the USSR Academy of Sciences. Technical Sciences Division. Fuel and Metallurgy
Izv. Azerb. fil. AN SSSR	Izvestiya Azerbaydzhanskogo filiala AN SSSR	News of Azerbaydzhan Branch of USSR Academy of Sciences
Izv. AN Azerb. SSR. Ser. fiz-tekhn. i khim. n.	Izvestiya Akademii nauk Azerb. SSR. Seriya fiziko- tekhnicheskikh i khimicheskikh nauk	News of the Azerbaydzhan SSR Academy of Sciences. Physical Engineering and Chemical Sciences Series
Izv. AN Latv. SSR	Izvestiya Akademii nauk Latv. SSR	News of the Latvian SSR Academy of Sciences
Izv. Vsesoyuzn. teplotekhn. in-ta	Izvestiya Vsesoyuznogo teplotekhnicheskogo instituta im. imeni F. Dzerzhinskiy F. Dzerzhinskogo	News of All-Union Heat Engineering Institute
Izv. vyssh. ucheb. zavedeniy. Neft' i gaz	Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz	News of Institutions of Higher Learning: Petroleum and Gas
Izv. vyssh. ucheb. zavedeniy. Khimiya i khim. tekhnologiya	Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya	News of Institutions of Higher Learning: Chemistry and Chemical Engineering
Izv. vyssh. ucheb. zavedeniy. Tsvet. metallurgiya	Izvestiya vysshikh uchebnykh zavedeniy. Tsvetnaya metallurgiya	News of Institutions of Higher Learning: Non-Ferrous Metallurgy

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Izv. sektora fiz.- khim. analiza	Izvestiya sektora fiziko-khimicheskogo analiza	News of Sector of Physico Chemical Analysis
Izv. Sib. otd. AN SSSR	Izvestiya Sibirskogo otdeleniya Akademii nauk SSSR	News of Siberian Branch of the USSR Academy of Sciences
Izv. elektroprom- sti slabogo toka	Izvestiya elektropromyshlennosti slabogo toka	News of the Weak-Current Electrical Industry
Inform. byull. po protivokorroziy. tekhnike	Informatsionnyy byulleten'. Tekhnika zashchity ot korrozii	Information Bulletin. Anti-Corrosion Techniques and Equipment
Kauchuk i rezina	Kauchuk i rezina	Latex and Rubber
Kachestv. stal'	Kachestvennaya stal'	Hard Steel
Kislород	Kislород	Oxygen
Kozh.-obuv. prom-st' SSSR	Kozhevenno-obuvnaya promyshlennost' SSSR	Leather Footwear Industry of the USSR
Koks i khimiya	Koks i khimiya	Coke and Chemistry
Kolloidn. zh.	Kolloidnyy zhurnal	Colloids Journal
Kommun. str-vo	Kommunal'noye stroitel'stvo	Public Buildings Construction
Konserv. prom-st'	Konservnaya promyshlennost'	Canning Industry
Konservn. i ovosh- chesushil'n. prom- st'	Konservnaya i ovoshchesushil'naya promyshlennost'	Canning and Dehydrated Vegetables Industry
Korroziya i bor'ba s ney	Korroziya i bor'ba s ney	Corrosion and Anti-Corrosion Techniques

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Legkaya prom-st'	Legkaya promyshlennost'	Light Industry
Legkiye metally	Legkiye metally	Light Metals
Lesokhim. prom-st'	Lesokhimicheskaya promyshlennost'	Wood Chemistry Industry
Liteynoye proiz-vo	Liteynoye proizvodstvo	Foundry Production
L'nopen'kodzhutov-aya prom-st'	L'nopen'kodzhutov-aya promyshlennost'	Flax-Hemp-Jute Industry
Malyarnoye delo	Malyarnoye delo	Housepainting
Maslob.-zhir. prom-st'	Masloboyno-zhirovaya promyshlennost'	Oils and Fats Industry
Mashinostroitel'	Mashinostroitel'	Machine Construction Worker
MDNTP	Moskovskiy dom nauchno-tekhnicheskoy propagandy	Moscow House of Scientific Technical Propaganda
MTS	Mashino-traktornaya stantsiya	Machine Tractor Station
Med. prom-st'	Meditsinskaya promyshlennost'	Medical Industry
Metallovedeniye i obrabotka metallov	Metallovedeniye i obrabotka metallov	Metals Science and Metal Processing
Metallovedeniye i term. obrabotka metallov	Metallovedeniye i termicheskaya obrabotka metallov	Metals Science and Heat Treatment of Metals
Metallurg	Metallurg	Metallurgist
Mekhaniz. str-va	Mekhanizatsiya stroitel'stva	Mechanization of Construction

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Mekhaniz. i motor- iz. RKKA	Mekhanizatsiya i motorizatsiya Raboche-Krest'- yanskoy Krasnoy Armii	Mechanization and Motor- ization of the Worker- Peasant Red Army
Mikrobiologiya	Mikrobiologiya	Microbiology
Miner. udobr. i insektofungisidy	Mineral'nyye udob- reniya i insekto- fungisidy	Mineral Fertilizers and Insectofungicides
Molochno-maslodel. prom-st'	Molochno-maslodel- atel'naya promysh- lennost'	Dairy and Butter Making Industry
Morskoy flot	Morskoy flot	Maritime Fleet
Morskoy i rechnoy flot	Morskoy i rechnoy flot	Maritime and River Fleet
Moskva i Volgostroy	Moskvavolgostroy	Moscow and Volgograd Construction Trust
Motor	Motor	Motors
Myasnaya industr- iya SSSR	Myasnaya industr- iya SSSR	Meat Industry of the USSR
Nauka i zhizn'	Nauka i zhizn'	Science and Life
Nauch. dokl. vyssh. shkoly. Mashino- stroyeniye i pri- borostroyeniye	Nauchnyye doklady vysshey shkoly. Mashinostroyeniye i priborostroyen- iye	University Scientific Reports: Machine Con- struction and Instrument Making
Nauch. dokl. vyssh. shkoly. Metallurg- iya	Nauchnyye doklady vysshey shkoly. Metallurgiya	University Scientific Reports: Metallurgy
Nauch. dokl. vyssh. shkoly. Stroitel'- stvo	Nauchnyye doklady vysshey shkoly. Stroitel'stvo	University Scientific Reports: Construction

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Nauch. dokl. vyssh. shkoly. Khimiya i khim. tekhnologiya	Nauchnyye doklady vysshey shkoly: Khimiya i khimicheskaya tekhnologiya	University Scientific Reports: Chemistry and Chemical Engineering
Neft'	Neft'	Petroleum
Neft. kh-vo	Neftyanoye khozyaystvo	Oil Industry
Novaya tekhn. montazh. i spets. rabot v str-ve	Novaya tekhnika montazhnykh i spetsial'nykh rabot v stroitel'stve	New Techniques and Equipment for Assembly and Specialized Operations in Construction
Ogneupory	Ogneupory	Fireproof Materials
Optiko-mekhan. prom-st'	Optiko-mekhanicheskaya promyshlennost'	Optical Mechanics Industry
Organizatsiya upravleniya	Organizatsiya upravleniya	Control Organization
Plastmassy	Plasticheskiye massy	Plastics
Podshipnik	Podshipnik	Bearings
Predpriyatiye	Predpriyatiye	The Factory
Priborostroyeniye	Priborostroyeniye	Instrument Making
Priroda	Priroda	Nature
Proizv.-tekhn. inform. byull. Gl. upr. metiz. prom-sti	Proizvodstvenno-tekhnicheskiy informatsionnyy byulleten'. Glavnoye upravleniye metiznoy promyshlennosti	Production Engineering Information Bulletin of the Main Administration of the Metalware Industry

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Promysl. kooperatsiya	Promyslovaya kooperatsiya	Manufacturing Cooperatives
Prom. energetika	Promyshlennaya energetika	Industrial Power Engineering
Prom. str-vo	Promyshlennoye stroitel'stvo	Industrial Construction
Prom-st' organ. khimii	Promyshlennost' organicheskoy khimii	Organic Chemistry Industry
Rabochiy metallurg	Rabochiy metallurg	The Metal Worker
Redkiye metally	Redkiye metally	Rare Metals
Rechn. transport	Rechnoy transport	River Transport
Russko-germ. vestn. nauki i tekhniki	Russko-germanskii vestnik nauki i tekhniki	Russo-German Herald of Science and Technology
Rybnoye khoz-vo	Rybnoye khozyaystvo	Fisheries
Samolet	Samolet	Aircraft
Sakhar	Sakhar	Sugar
Sakharnaya prom-st'	Sakharnaya promyshlennost'	Sugar Industry
Svarochnoye proizvodstvo	Svarochnoye proizvodstvo	Welding
Sel'khoz mashina	Sel'khoz mashina	Farm Machinery
Signaliz. i svyaz' na zh.-d. transp.	Signalizatsiya i svyaz' na zheleznodorozhnom transporte	Signalling and Communication on Rail Transport
Sintetich. kauchuk	Sinteticheskiy kauchuk	Synthetic Rubber

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Sov. metallurgiya	Sovetskaya metallurgiya	Soviet Metallurgy
Sov. metropoliten	Sovetskiy metropoliten	Soviet Urban Subways and Elevateds
Sorena	Sorena	
Sostialistich. nauka i tekhnika	Sotsialisticheskaya nauka i tekhnika	Socialist Science and Technology
Sotsialistich. transport	Sotsialisticheskiy transport	Socialist Transport
Sotsialistich. rekonstruktsiya i nauka	Sotsialisticheskaya rekonstruktsiya i nauka	Socialist Remodelling and Science
Spirovaya prom-st'	Spirovaya promyshlennost'	Alcohol Industry
Stal'	Stal'	Steel
Standartizatsiya	Standartizatsiya	Standardization
Stanki i instrument	Stanki i instrument	Lathes and Tools
Stroit. prom-st'	Stroitel'naya promyshlennost'	Construction Industry
Stroit. materialy, izdeliya i konstruktsii	Stroitel'nyye materialy, izdeliya konstruktsii	Construction Materials, Items and Frames
Str-vo predpr. neft. prom-sti	Stroitel'stvo predpriyatiy neft-yanoy promyshlennosti	Construction of Oil Industries Enterprises
Str-vo trubopro- vodov	Stroitel'stvo truboprovodov	Pipe Line Construction
Sudostroyeniye	Sudostroyeniye	Ship Building
Tabak	Tabak	Tobacco

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Tankist	Tankist	Tankman
Tekstil'n. prom-st'	Tekstil'naya promyshlennost'	Textile Industry
Tekstil'n. vestn.	Tekstil'nyy vestnik	Textile Herald
Teoriya i praktika metallurgii	Teoriya i praktika metallurgii	Theory and Practice of Metallurgy
Teplo i sila	Teplo i sila	Heat and Power
Teplosilovoye kh-vo	Teplosilovoye khozyaystvo	Diesel and Thermal Power
Teploenergetika	Teploenergetika	Heat and Power Engineering
Tekhnika vozdushno-go flota	Tekhnika vozdushno-go flota	Air Force Materiel and Technology
Tekhn. zhel. dorog	Tekhnika zheleznnykh dorog	Railway Engineering
Tekhnika molodezhi	Tekhnika molodezhi	Youth Engineering
Tekhnika svyazi	Tekhnika svyazi	Communications Engineering
Tekhn. propaganda	Tekhnicheskaya propaganda	Technical Propaganda
Torf. prom-st'	Torfyannaya promyshlennost'	Peat Industry
Tochnaya industriya	Tochnaya industriya	Precision Industry
Transp. str-vo	Transportnoye stroitel'stvo	Transport Construction
Tyazheloye mashinostroyeniye	Tyazheloye mashinostroyeniye	Heavy Machine Construction
Ugol'	Ugol'	Coal

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Ukr. matem. zh.	Ukrainskiy matematicheskiy zhurnal	Ukrainian Mathematical Journal
Ukr. khim. zh.	Ukrainskiy khimicheskiy zhurnal	Ukrainian Chemical Journal
Ural. metallurgiya	Ural'skaya metallurgiya	Ural Metallurgy
Uspekhi khimii	Uspekhi khimii	Advances in Chemistry
Fiz. metallov i metallovedeniye	Fizika metallov i metallovedeniye	Physics of Metals and Metals Science
KHim. nauka i prom-st'	Khimicheskaya nauka i promyshlennost'	Chemistry and Industry
KHim. prom-st'	Khimicheskaya promyshlennost'	Chemical Industry
KHim. volokna	Khimicheskiye volokna	Chemical Fibers
KHim mashinostro-yeniye	Khimicheskoye mashinostroyeniye	Chemical Machine Construction
KHimiya v shkole	Khimiya v shkole	Chemistry in the School
KHimiya i tekhnol. topliva	Khimiya i tekhnologiya topliva	Chemistry and Fuel Engineering
KHimiya i tekhnol. topliv i masel	Khimiya i tekhnologiya topliv i masel	Chemistry and Fuels and Lubricants Engineering
KHimstroy	Khimstroy	Chemical Construction
KHlopch.-bum. prom-st'	Khlopchatobumazh-naya promyshlennost'	Cotton Industry
KHolodil'n. tekhnika	Kholodil'naya tekhnika	Refrigerator Equipment
TSvetnyye metally	Tsvetnyye metally	Non-Ferrous Metals

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
TSement	Tsement	Cement
Energomashinostro- yeniye	Energomashinostro- yeniye	Power Engineering Machine Construction
Elektr. stantsii	Elektricheskiye stantsii	Electric Power Stations
Elektrichestvo	Elektrichestvo	Electricity
Energetik	Energetik	Power Engineer
Energ. byull.	Energeticheskiy byulleten'	Power Engineering Bulletin
BSE	Bol'shaya sovetskaya entsiklopediya	Large Soviet Encyclopedia
Byull. gos. n.-i. khim. in-ta vysokikh davleniy	Byulleten' gosudar- stvennogo nauchno- issledovatel'skogo khimicheskogo instituta vysokikh davleniy	Bulletin of the State High Pressures Chemical Research Institute
VNITOM	Vsesoyuznoye nauchnoye inzhen- erno-tekhniches- koye obshchestvo metallurgov	All-Union Scientific Society of Metallurgical Engineers and Technicians
VINITI	Vsesoyuznyy institut nauchnoy i tekhnicheskoy informatsii	All-Union Institute of Scientific and Technical Information
Zap. In-tu khimii	Zapiski Instituta khimii	Records of the Chemistry Institute
ITEIN AN SSSR	Institut tekhniko- ekonomicheskoy in- formatsii Akademii nauk SSSR	Institute of Technical and Economic Information of the USSR Academy of Sciences

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Mosk. in-t stali	Moskovskiy institut stali	Moscow Steel Institute
Mos. ped. in-t im. Lenina	Moskovskiy pedagogicheskiy institut im. V. I. Lenina	Moscow Teacher Training Institute imeni V. I. Lenin
Nauch-tekhn. sb. po gazovoy tekhnike	Nauchno-tekhnicheskiy sbornik po gazovoy tekhnike	Scientific-Technical Anthology on Gas Equipment
Nauch. zap. Kiiivs'k un-tu	Nauchnyye zapiski Kiyevskogo universiteta	Scientific Notes of Kiev University
Nauch. zap. In-ta mashinovedeniya i avtomatiki AN Ukr. SSR	Nauchnyye zapiski Instituta mashinovedeniya i avtomatiki Akademii nauk Ukr. SSR	Scientific Notes of the Institute of Machine Science and Automation of the Ukrainian SSR Academy of Sciences
Nauch. zap. Ukr. poligr. in-ta	Nauchnyye zapiski Ukrainetskogo poligraficheskogo instituta	Scientific Notes of the Ukrainian Printing Institute
Nauch. zap. Khar'kovsk. in-ta sov. tovgolvi	Nauchnyye zapiski Khar'kovskogo instituta sovetskoy tovgolvi	Scientific Notes of the Kharkov Institute of Soviet Trade
Nauch. tr. Mosk. poligr. in-ta	Nauchnyye trudy Moskovskogo poligraficheskogo instituta	Scientific Proceedings of the Moscow Printing Institute
Nauch. tr. Novocherk. politekhn. in-ta	Nauchnyye trudy Novocherkasskogo politekhnicheskogo instituta	Scientific Proceedings of the Novocherkassk Polytechnical Institute
Nauch. tr. Khar'kovsk. gorn. in-ta	Nauchnyye trudy Khar'kovskogo gornogo instituta	Scientific Proceedings of the Kharkov Mining Institute

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Sb. Kom-ta po korrozii i zashchite metallov Vsesoyuzn. soveta nauch.-tekhn. o-v	Sbornik Komiteta po korrozii i zashchite metallov Vsesoyuznogo soveta nauchno-tekhnicheskikh obshchestv	Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies
Sb. Mosk. in-ta stali	Sbornik Moskovskogo instituta stali imeni I. V. Stalina	Anthology of the Moscow Steel Institute imeni V. I. Stalin
Sb. nauch. rabot komsomol'tsev AN SSSR	Sbornik nauchnykh rabot komsomol'tsev Akademii nauk SSSR	Anthology of Scientific Works of Komsomol Member of USSR Academy of Sciences
Sb. statey Gos. in-ta prikl. khimii	Sbornik statey k 20-letiyu Gosudarstvennogo instituta prikladnoy khimii	Anthology of Articles for the 20th Anniversary of the State Institute of Applied Chemistry
Soveshch. po vopr. korrozii i bor'by s ney	Soveshchaniye po voprosam korrozii i bor'by s ney	Conference on Questions of Corrosion and Means of Combatting It
Soobshch. Vsesoyuzn. in-ta metall-ov	Soobshcheniya Vsesoyuznogo instituta metallov	Communications of the All-Union Institute of Metals
Soobshch. Giprokoksa	Soobshcheniya Gosudarstvennogo instituta po proyektirovaniyu predpriyatiy koksokhimicheskoy promyshlennosti	Communications of the State Institute for the Planning of Industrial By-Product Coke Enterprises
Soobshch. Dal'nevost. fil. AN SSSR	Soobshcheniya Dal'nevostochnogo filiala Akademii nauk SSSR	Communications of the Far Eastern Branch of the USSR Academy of Sciences

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Soobshch. Leningr. in-ta metallov	Soobshcheniya Leningradskogo in- stituta metallov	Communications of the Leningrad Institute of Metals
Soobshch. Tsent. in-ta metallov	Soobshcheniya Tsentral'nogo instituta metallov	Communications of the Central Institute of Metals
Tekhnich. entsiklopediya	Tekhnicheskaya entsiklopediya	Technical Encyclopedia
Tr. AN Lit. SSR	Trudy Akademii nauk Litovskoy SSR	Proceedings of the Lithuanian SSR Academy of Sciences
Tr. Azerb. industr. in-ta	Trudy Azerbaydzhan- skogo industrial'nogo instituta	Proceedings of the Azerbaydzhan Industrial Institute
Tr. Voronezhsk. un-ta	Trudy Voronezhskogo universiteta	Proceedings of Voronezh University
Tr. Vsesoyuzn. alyumin.-magniyev- vogo in-ta	Trudy Vsesoyuznogo alyuminiyevov- magniyevogo instituta	Proceedings of the All-Union Aluminum and Magnesium Institute
Tr. VIAM	Trudy Vsesoyuznogo instituta aviatsionnykh materialov	Proceedings of the All-Union Institute of Aviation Materials
Tr. Vsesoyuzn. in-ta sodovoy prom-sti	Trudy Vsesoyuznogo instituta sodovoy promyshlennosti	Proceedings of the All- Union Institute of the Soda Industry
Tr. Vsesoyuzn. n.-i. in-ta metrologii	Trudy Vsesoyuznogo nauchno-issledovatel'- skogo instituta metro- logii	Proceedings of the All-Union Scientific Research Institute of Weights and Measures

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Tr. Vsesoyuzn. n.- i. in-ta po pere- rabotke nefiti i gaza i polucheniyu iskusstv. zhidko- go topliva	Trudy Vsesoyuznogo nauchno-issledovat- el'nogo instituta po pererabotke nefiti i gaza i polucheniyu iskusstvennogo zhidko- go topliva	Proceedings of All-Union Scientific Research Institute for Refining and Processing of Oil and Gas and Extraction of Synthetic Liquid Fuels
Tr. Vsesoyuzn. n.- i. in-ta prirodnykh gazov	Trudy Vsesoyuznogo nauchno-issledovat- el'skogo instituta prirodnykh gazov	Proceedings of All-Union Scientific Research Institute of Natural Gases
Tr. Vsesoyuzn. soveshch. po radiats. khimii	Trudy Vsesoyuznogo soveshchaniya po radiatsionnoy khimii	Proceedings of the All- Union Conference on Radiational Chemistry
Tr. Gor'kovsk. politekhn. in-ta	Trudy Gor'kovskogo politekhnikeskogo instituta	Proceedings of the Gorky Polytechnical Institute
Tr. Gruz. politekhn. in-ta	Trudy Gruzinskogo politekhnikeskogo instituta	Proceedings of the Georg- ian Polytechnical Instit- ute
Tr. Dnepropetr. in-ta zh.-d. transp.	Trudy Dnepropet- rovskogo instituta zheleznodorozhnogo	Proceedings of the Dnepro- petrovsk Institute of Rail Transpor Engineers
Tr. Dnepropetr. khim.-tekhnol. in- ta	Trudy Dnepropetrovskogo khimiko-tekhnologicheskogo instituta	Proceedings of the Dnepropetrovsk Chemical Engineer- ing Institute
Tr. Ivanovsk. khim.-tekhnol. in- ta	Trudy Ivanovskogo khimiko-tekhnologicheskogo instituta	Proceedings of the Ivanovo Chemical Engineering Institute
Tr. In-ta zh.- d. transporta	Trudy Instituta zheleznodorozhnogo transporta	Proceedings of the Institute of Rail Trans- port

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Tr. In-ta krist-allogr. AN SSSR	Trudy Instituta kristallografi Akademii nauk SSSR	Proceedings of the Crystallography Institute of the USSR Academy of Sciences
Tr. In-ta metallov	Trudy Instituta metallov	Proceedings of the Institute of Metals
Tr. In-ta metallurgii AN SSSR im. Baykova	Trudy Instituta metallurgii Akademii nauk SSSR imeni Baykova	Proceedings of the imeni Baykov Metallurgical Institute of the USSR Academy of Sciences
Tr. In-ta nefti AN SSSR	Trudy Instituta nefti Akademii nauk SSSR	Proceedings of the Petroleum Institute of the USSR Academy of Sciences
Tr. In-ta prikl. Mineralogii	Trudy Instituta prikladnoy mineralogii	Proceedings of the Institute of Applied Mineralogy
Tr. In-ta torfa AN Bel. SSR	Trudy Instituta torfa Akademii nauk Bel. SSR	Proceedings of the Peat Institute of the Belorussian SSR Academy of Sciences
Tr. In-ta fiziki i matematiki AN Azerb. SSR, ser. fiz.	Trudy Instituta fiziki i matematiki Akad. nauk Azerb. SSR, Seriya fizicheskaya	Proceedings of the Institute of Physics and Mathematics of the Azerbaydzhan SSR Academy of Sciences, Physics Series
Tr. In-ta fiz. khimii AN SSSR	Trudy Instituta fizicheskoy khimii Akad. nauk SSSR	Proceedings of the Institute of Physical Chemistry of the USSR Academy of Sciences
Tr. Kazansk. aviats. in-ta	Trudy Kazanskogo aviatsionnogo instituta	Proceedings of the Kazan' Aviation Institute
Tr. Kazansk. khim.-tekhnol. in-ta	Trudy Kazanskogo khimiko-tekhnologicheskogo Instituta	Proceedings of the Kazan' Chemical Engineering Institute

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Tr. Kazakh. gorno-metallurg. in-ta	Trudy Kazakhstanskogo gorno-metallurgicheskogo instituta	Proceedings of the Kazakh Mining and Metallurgy Institute
Tr. Komissii po bor'be s korroziei metallov AN SSSR	Trudy Komissii po bor'be s korroziei metallov AN SSSR	Proceedings of the USSR Academy of Sciences Commission on Anti-Metal Corrosion Measures
Tr. konfer. po korrozii metallov AN SSSR	Trudy konferentsii po korrozii metallov AN SSSR	Proceedings of Conference of USSR Academy of Sciences on Corrosion of Metals
Tr. Leningr. in-ta aviats. priborostroyeniya	Trudy Leningradskogo instituta aviatsionnogo priborostroyeniya	Proceedings of Leningrad Aircraft Instrument Making Institute
Tr. Leningr. korablestr. in-ta	Trudy Leningradskogo korablestroitel'nogo instituta	Proceedings of the Leningrad Ship Building Institute
Tr. Leningr. tekhnol. in-ta im. Lensoveda	Trudy Leningradskogo tekhnologicheskogo instituta im. Lensoveda	Proceedings of the Leningrad Engineering Institute imeni Leningrad Soviet
Tr. Leningr. khim.-tekhnol. in-ta	Trudy Leningradskogo khimiko-tekhnologicheskogo instituta	Proceedings of the Leningrad Chemical Engineering Institute
Tr. Leningr. elektrotekhn. in-ta inzh. signalizatsii i svyazi	Trudy Leningradskogo elektrotekhnicheskogo instituta inzhenerov signalizatsii i svyazi	Proceedings of Leningrad Electrical Engineering Institute of Signalization and Communication Engineers
Tr. Mosk. aviats. in-ta	Trudy Moskovskogo aviatsionnogo instituta	Proceedings of the Moscow Aviation Institute

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Tr. Mosk. in-ta khim. mashinostroyeniya	Trudy Moskovskogo instituta khimicheskogo mashinostroyeniya	Proceedings of the Moscow Institute of Chemical Machine Construction
Tr. Mosk. khim.-tekhnol. in-ta im. D. I. Mendeleeva	Trudy Moskovskogo khimiko-tekhnologicheskogo instituta im. D. I. Mendeleeva	Proceedings of the Moscow Chemical Engineering Institute imeni D. I. Mendeleev
Tr. N.-i. in-ta osnovnoy khimii	Trudy Nauchno-issledovatel'skogo instituta osnovnoy khimii	Proceedings of the Research Institute of Basic Chemistry
Tr. N.-i. in-ta sintetich. spritov i organicheskikh produktov	Trudy Nauchno-issledovatel'skogo instituta sinteticheskikh spritov i organicheskikh produktov	Proceedings of the Research Institute of Synthetic Alcohols and Organic Products
Tr. N.-i. i proyekt. in-ta azotnoy prom-sti (GIAP)	Trudy Nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti	Proceedings of the Design and Planning Research Institute of the Nitrogen Industry
Tr. Novosib. s.-x. in-ta	Trudy Novosibirskogo sel'skokhozyaystvennogo instituta	Proceedings of the Novosibirsk Agricultural Institute
Tr. Novocher. politehn. in-ta	Trudy Novocherkasskogo politekhnicheskogo instituta	Proceedings of the Novocherkassk Polytechnical Institute
Tr. Odessk. industr. in-ta	Trudy Odesskogo industrial'nogo instituta	Proceedings of the Odessa Industrial Institute
Tr. Sib. fiz.-tekhn. in-ta	Trudy Sibirskogo fiziko-tekhnicheskogo instituta	Proceedings of the Siberian Physicotechnical Institute

<u>Abbreviation</u>	<u>Complete Title</u>	<u>English Translation</u>
Tr. Soveshch. po voprosam korrozii i bor'by s ney	Trudy Soveshchaniya po voprosam korrozii i bor'by s ney	Proceedings of Conference on Questions of Corrosion and How To Combat It
Tr. Ukr. n.-i. in-ta metallov	Trudy Ukrainskogo nauchno-issledovatel'skogo instituta metallov	Proceedings of the Ukrainian Research Institute of Metals
Tr. Ural. politekh. in-ta	Trudy Ural'skogo politekhnicheskogo instituta	Proceedings of the Ural Polytechnical Institute
Tr. Khar'kovsk. n. -i. uglemekhim. in-ta	Trudy Khar'kovskogo nauchno-issledovatel'skogo uglemekhimicheskogo instituta	Proceedings of the Khark Research Institute of Chemistry
Tr. Khar'kovsk. politekh. in-ta	Trudy Khar'kovskogo politekhnicheskogo instituta	Proceedings of the Khark Polytechnical Institute
Tr. TsAGI	Trudy Tsentral'nogo aviatsionnogo gidrodinamicheskogo instituta im. N. Ye. Zhukovskogo	Proceedings of the Central Aviation Institute of Hydrodynamics imeni N. E. Zhukovskiy
Uch. zap. Belorussk. un-ta	Uchenyye zapiski Belorusskogo universiteta	Scientific Notes of the Belorussian University
Tr. Tsentr. n.-i. in-ta morskogo flota	Trudy Tsentral'nogo nauchno-issledovatel'skogo instituta morskogo flota	Proceedings of the Central Research Institute of the Maritime Fleet
Uch. zap. Kazansk. un-ta	Uchenyye zapiski Kazanskogo universiteta	Scientific Notes of the Kazan' University

<u>Abbreviations</u>	<u>Complete Title</u>	<u>English Translation</u>
Uch. zap. Leningr. un-ta	Uchenyye zapiski Leningradskogo universiteta	Scientific Notes of the Leningrad University
Uch. zap. L'vivs'k. u-tu	Uchenyye zapiski L'vovskogo universiteta	Scientific Notes of the L'vov University
Uch. zap. MGU	Uchenyye zapiski Moskovskogo gosudarstvennogo universiteta	Scientific Notes of the Moscow State University
Uch. zap. Rost. n/D. gos. un-ta	Uchenyye zapiski Rostov n/D gosudarstvennogo universiteta	Scientific Notes of the Rostov-on-the-Don State University
Uch. zap. Chelyab. pedagogich. in-ta	Uchenyye zapiski Chelyabinskogo pedagogicheskogo instituta	Scientific Notes of the Chelyabinsk Teacher Training Institute
TS NIITMASH	Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya	Central Research Institute of Machine Technology

LIST OF CONVENTIONAL ABBREVIATIONS

AN SSSR.....	Akademiya nauk SSSR...	Academy of Sciences of USSR
AN Azerb. SSR.....	Akademiya nauk Azer- baydzhanskoy SSR.....	Azerbaydzhan SSR Academy of Sciences
AN Gruz. SSR.....	Akademiya nauk Gruz- inskoy SSR.....	Georgian SSR Academy of Sciences
AN Kazakh. SSR.....	Akademiya nauk Kaz- akhskoy SSR.....	Kazakh SSR Academy of Sciences
AN Latv. SSR.....	Akademiya nauk Lat- viyskoy SSR.....	Latvian SSR Academy of Sciences
AN Lit. SSR.....	Akademiya nauk Lit- ovskoy SSR.....	Lithuanian SSR Academy of Sciences
AN Ukr. SSR.....	Akademiya nauk Ukrainskoy SSR.....	Ukrainian SSR Academy of Sciences
Bibliogr.	Bibliografiya.....	Bibliography
Byull.	Byulleten!.....	Bulletin
Vyp.	Vypusk.....	Issue
Vyshh.	Vyshshaya.....	Advanced
Gos.	Gosudarstvennyy.....	State
Diss.	Dissertatsiya.....	Dissertation
Zh.	Zhurnal.....	Journal
Zavodsk.	Zavodskaya.....	Factory

Im.	Imeni.....	Named After
Inzh.	Inzhenernyy.....	Engineering
In-t.....	Institut.....	Institute
Zap.	Zapiski.....	Notes
Izv.	Izvestiya.....	News
Kand.	Kandidata.....	Candidate
Kn.	Kniga.....	Book
Mosk.	Moskovskiy.....	Moscow
Nazv.	Nazvaniy.....	Titles
N.-i.	Nauchno-issledovatel'skiy...	Research
O-vo.....	Obshchestvo.....	Society
Otd.	Otdeleniye.....	Section (Department)
N.	Nauk.....	Sciences
Probl.	Problemy.....	Problems
Red.	Redaktsiya.....	Editorial Board
Rets.	Retsenziya.....	Review
Sb.	Sbornik.....	Anthology
Sm.	Smotri.....	Confer
Soobshch.	Soobshcheniya.....	Communications
Tekhnol.	Tekhnologicheskij.....	Technological
Tr.	Trudy.....	Proceedings
Un-t.....	Universitet.....	University
Fiz.	Fizicheskij.....	Physical

Khim.Khimicheskiy.....Chemical
Konfer.....Konferentsiya.....Conference
Prom-st'.....Promyshlennost'.....Industry
Soveshch.Soveshchaniye.....Conference

INTRODUCTION

The corrosion of construction materials or, in other words, their spontaneous destruction under the action of the surrounding environment is causing immense damage to our national economy.

Hundreds of millions of roubles are being spent on combatting corrosion; it is therefore understandable that the Soviet government should devote such attention to this question. Recent years have seen the issuance of a number of resolutions providing for effective measures at improving the combatting of corrosion of metals.

The present state of the science of corrosion and protection of metals in the USSR is extremely good, as is underscored in the foreign press in 1959 by such scientists as Brenner (USA), Cotton and Potter (England) and others. This fine showing is the result of persistent work of Russian and Soviet scientists over a period of more than 200 years.

The first detailed study of the dissolution of metals in acids (nitric and hydrochloric) was carried out by M. V. Lomonosov in 1744; using the microscope, he determined the amount of gas given off (Dissertatsiya o deystvii khimicheskikh rastvoriteley voobshche /Dissertation on the Action of Chemical Solvents in General/ published in the New Commentaries of the Academy of Sciences, 1747, Vol I, pages 245-266). Lomonosov showed that the mechanism of dissolution of metals is basically different from that of the dissolution of salts, in that in the dissolution of metals heat is given off whereas in the dissolution of salts heat is consumed. He also brought to light the cessation of the dissolution of iron wire in "strong spirit of saltpeter" (nitric acid), i. e. in other words he discovered the phenomenon of the passivity of metal.

A great contribution to the study of the phenomena of dissolution and passivity of metals was made by Academician V. V. Petrov (Izvestiya o gal'vani-vol'tovskikh opytakh /News of the Galvani-Volta Experiments/ St. Petersburg, 1803). He was the first to explain the process of passivation by the formation of a layer of oxide on the surface of the metal and proposed that the metal be etched on its surface with diluted sulphuric acid in order to activate it.

Academician A. I. Sherer expounded in great detail in 1808 the principles of the theory of corrosion, noting for the first time the role of temperature and contact of two metals (Rukovodstvo k prepodavaniiyu khimii /Guide for the Teaching of Chemistry/, Section 148, St. Petersburg, 1808). And Prof. F. I. Gize (Chemistry, Kharkov University) propounded the theory of the dissolution of metals by the action of microelectrochemical elements (Vseobshchaya khimiya dlya uchashchikh i uchashchikhsya /General Chemistry for Students and Teachers/, Sections 99-100, Kharkov, Vol I, 1813).

A number of significant practical works on the combatting of corrosion were executed at the beginning of the 19th century, when the problem arose of eliminating the destruction of the copper plating of ships' hulls. The iron nails fastening the copper plates were subject to intensive corrosion. As early as 1820, S. P. Vlasov succeeded in perfecting a method for obtaining on the surface of the iron nails of a protective oxide film. The use of nails so treated considerably decreased the rate of corrosion of the copper plating (cf. V. Lyubarskiy's article in Sorevnovatel' prosveshcheniya /The Educationalist/, 1821, Part 16, pages 236-237).

Of great practical importance were the works of Academician B. S. Yakobi at electrochemical protection of steel in seawater; these projects were executed at the commission of the Maritime Scientific Committee in the period from 1854 to 1858. The researches resulted in the use of a zinc protector to shield the steel hulls of mines from corrosion.

Interesting researches on acid corrosion of metals were performed in 1881 by N. Kayander (Zhurnal russkogo fiziko-khimicheskogo obshchestva, chast' khimicheskaya /Journal of the Russian Physicochemical Society, Chemical Part/, 1881, Vol 13, pages 231, 246, 257), who drew attention to the fact that the speed of corrosion was a function of the electrical conductivity of the solution. N. P. Sluginov was the first to undertake a quantitative calculation of the activity of the microgalvanic elements (Teoriya elektroliza /Theory of Electrolysis/, St. Petersburg, 1881).

Systematic researches on the processes of passivization of metals were begun in 1907 and pursued in the sequel by V. A. Kistjakovski (Journal of the Russian Physicochemical Society, Chemical Part, 1907, Vol 39, Section 1, Issue 8, 1445-1446, 1453-1454; 1454-1455; 1908, Vol 40, Section 1, Issue 8, 1782-1784; 1909, Vol 41, Section 1, Issue 4, 527; Elektrokhimiya /Electro-

chemistry⁷, St. Petersburg, Part I, 1912; Part II, Issue I, 1919; Part II, Issue 2, 1916). He discovered photochemical phenomena and propounded the film theory of passivity.

Comparative atmospheric tests on iron roofing of various types were carried out at the beginning of the 20th century by A. I. Omufrovich (Zhurnal Russkogo metallurgicheskogo obshchestva /Journal of the Russian Metallurgical Society/, 1910, No 5, 203), while Ye. Kuklin made a study of the processes of etching of steel (Journal of the Russian Metallurgical Society, 1910, No 5, page 238).

A number of interesting researches on the theory of corrosion were carried out in the prerevolutionary years by Corresponding Member of the USSR Academy of Sciences N. A. Izgaryshev (Issledovaniya v oblasti elektrodnykh protsessov /Researches in the Field of Electrode Processes/, Moscow, 1914; Elektrokhimicheskaya teoriya razrusheniya metallov /Electrochemical Theory of Corrosion of Metals/, Moscow, 1916).

Especially fruitful and numerous researches on corrosion and protection of metals have been carried out since the Great October Revolution. In the period from 1925 to 1940 there developed three main trends in the treatment of processes of metal corrosion. The first, which we have chosen to call the colloid-electrochemical, is represented by the works of Academician V. A. Kistyakovskiy (1865-1952) and his colleagues. On the basis of a study of the electrochemical behavior of metallic electrodes, he formulated a theory of corrosion of metals which included the notions of the thin oxide film on the surface of the metal, as a highly dispersed, colloidal, amorphous system, and of the existence of intermediary states of the metal surface distinct from both the active and the passive ones. The transition of the metal from a passive state into an active one begins with the formation of corrosion in the film, its crystallization caused by the action of molecular forces. Corrosion, according to Kistyakovskiy, occurs as a result of local galvanic currents between the component parts of the amorphous film and other impurities on the surface of the metal and the metal itself. Oxygen and carbonic acid serve as depolarizers for the local currents.

The development and substantiation of the heterogeneous-electrochemical trend in the science of corrosion of metals and research on structural corrosion have been carried out by G. V. Akimov (1901-1953) and his pupils. According to Akimov, a corroding metal represents a complex system of many electrodes.

The theory of multielectrode electrochemical systems developed by Akimov and N. D. Tomashov formed the basis for a successful explanation of the cause of intercrystal corrosion, the mechanism of the appearance of nonreversible potentials, the phenomena of the differential and the shielding effects, as well as several other instances of corrosion of metallic installations which were of practical importance. The school of corrosion experts founded by Akimov is the biggest in the USSR and it has received world-wide recognition. Individual chapters of his book Teoriya i metody issledovaniya korrozii metallov (Theory and Methods of Research on Corrosion of Metals), published in Russian by the USSR Academy of Sciences in 1945 were brought out in English translation in 1955 in the journal Corrosion, organ of the National Association of Corrosion Engineers of the USA.

The trend developed by Academician A. N. Frumkin, Ya. M. Kolotyrkin, A. I. Shultin, Ya. V. Durdin and their colleagues in a number of works is called the homogeneous-electrochemical trend, because it is based on the assertion of the possibility of the occurrence of processes of electrochemical corrosion without any spatial differentiation of the surface of the metal into anode and cathode sectors. At the same time, in the event of a lesion of the homogeneous nature of the surface causing, as a rule, an acceleration of the corrosion process, it is assumed that at the cathode connection the cathode reaction predominates while the conjugate anode reaction is slower; and, conversely, at the anode connection the process of anode oxidation is more intensive and simultaneously the conjugate cathode process of regeneration. If the area of connections is small, the entire surface of the metal can be considered to be equipotential, as has been shown by special calculations of V. G. Levich and A. I. Frumkin (Zh. fiz. khimii, 1941, Vol 15, No 6, page 789). In this case the speed of corrosion can be calculated, the influence of external conditions analyzed and the effectiveness of corrosion inhibitors determined, using the kinetic laws of electrode processes.

A substantial contribution to the development of the science of corrosion and protection of metals has been made by the associates of the USSR Academy of Sciences.

In the post-war years, N. D. Tomashov has discovered the phenomena of the reduction of the speed of corrosion of metals in process of passivation upon the insertion of cathode boosters. I. L. Rozenfel'd has studied the mechanism of the action of corrosion inhibitors and the electrochemical processes in the thin films of electrolytes; A. I. Golubev has studied the real micro-

elements and estimated the action of corrosive galvanic elements; P. D. Dankov, N. A. Shishakov, D. V. Ignatov and V. V. Andreyeva have carried out crystallochemical researches of the processes of metal oxidation; A. T. Vagrameyan and K. M. Gorbunov have studied the laws governing electrocrystallization of metals and alloys; N. S. Gorbunov has researched the processes of formation of thermodiffusing coatings and I. V. Krotov has researched the processes of formation of phosphate coatings.

A number of interesting researches on corrosion and protection of metals have been carried out in the industrial research institutes and in the universities. Mention must here be made in the first place of the work done by S. A. Balezin, S. D. Beskov, I. N. Putilova and V. P. Borannik on corrosion inhibitors; by S. G. Vedenkin on corrosion and protection of metals on rail transport; by L. I. Antropov on corrosion inhibitors and the role of the zero point of metals; by A. V. Ryabchenkov on corrosion of metals under conditions of stress; V. P. Batrakov on corrosion in strongly oxidizing environments and media; by A. I. Krasil'shchikov on the mechanism of oxygen depolarization; by I. Ya. Klinov on non-metallic chemical materials and by N. T. Kudryavtsev and V. I. Layner on galvanostegia.

In recent years large-scale work on corrosion and protection -- works which are important practically -- have been carried out in the Union Republics. In Latvia, Active Member of the Latvian SSR Academy of Sciences L. K. Lepin' and her associates are researching colloidal-chemical phenomena of dissolution of metals; in Lithuania, Active Member of the Lithuanian SSR Academy of Sciences Yu. Yu. Matulis is heading researches on the electrocrystallization of metals; in the Ukraine, projects are in progress under the direction of Corresponding Member of the Ukrainian SSR Academy of Sciences I. N. Frantsevich on cathode protection of underground pipe-lines and at finding protective alloys; Corresponding Member of the Azerbaydzhan SSR Academy of Sciences V. F. Negreyev is directing projects at protection of maritime underwater petroleum bases and high-level viaducts; in Georgia, Active Member of the Georgian SSR Academy of Sciences R. I. Agladze is doing work on electrocrystallization and corrosion of manganese.

Great attention is devoted in the USSR to the publication of reference works. Mention must here be made of such basic reference works as V. P. Batrakov's Korroziya konstruktivnykh materialov v agressivnykh sredakh (Corrosion of Construction Materials in Aggressive Media); the N. I. Ryabtsev-edited Zashchita podzemnykh metallicheskiy sooruzheniy ot korrozii (Protection of

Underground Structures from Corrosion); and also a number of reference works published by the Montazhkhimzashchita (Prevention of Metal Corrosion in Building Materials) Trust.

The brief survey of the history and present state of the science of corrosion and protection of metals makes clear the necessity of keeping the personnel of the research institutes and of industry well-informed on all published works in this field. Yet hitherto this so necessary bibliography of our own national literature on corrosion and protection has not been compiled. It is worthy of note that the foreign press has more than once published bibliographies of works on corrosion. In the USA, for example, a bibliography on questions of corrosion is regularly published by the National Association of Anti-Corrosion Engineers. In England the Metals Institute publishes a bibliography of works on corrosion.

In view of the fact that no special journal on corrosion and protection of metals is published in the USSR (whereas such journals are published in USA, England, France, West Germany and Czechoslovakia), the compilation of a bibliography of articles published in more than 200 journals and magazines presented certain difficulties.

The publication of this bibliography of our national scientific-technical works on corrosion and protection of materials will contribute to the incorporation of these published works into the practice of the USSR national economy.

V. V. Krasnoyarskiy

PART I, SECTION 4N

ROLE OF PROTECTIVE FILMS

IN THE CORROSION PROCESS OF METALS

838. G. V. Akimov, "Introduction to the Electrochemistry of Protective Films," Uspekhi khimii, 1947, Vol 16, No 3, pages 353-363.

839. A. S. Afanas'yev and Ye. N. Chankova, "Oxidized Surface of Steel as a Cathode," in the book: Problemy korrozii i zashchite metallov (Trudy 5-go Vsesoyuznogo po korrozii i zashchite metallov. In-t fiz. Khimii) (Problems of the Corrosion and Protection of Metals (proceedings of 5th All-Union Conference on Corrosion and Protection of Metals, Institute of Physical Chemistry)), USSR Academy of Sciences, Moscow, 1956, pages 126-135. Bibliography of 9 titles.

840. A. S. Afanas'yev and Ye. N. Chankova, "Electroregenerative Processes on Oxidized Steel," Zh. fiz. khimii, 1956, Vol 30, Issue 10, pages 2294-2300, 5 figures. bibliography of 13 titles.

841. A. S. Afanas'yev and Ye. N. Chankova, "Electroregenerative Processes on Oxidized Steel. Report 4: Extraction of Hydrogen," Zh. fiz. khimii, 1958, Vol 32, Issue 9, pages 2015-2019. Bibliography of 16 titles.

842. P. D. Dankov, "Mechanisms of Formation and Structure of Protective Films on Metals," Dokl. AN SSSR, 1939, Vol 23, No 6, pages 548-552. Bibliography of 9 titles.

843. P. D. Dankov, "Properties and Structures of Surface Layers," Priroda, 1933, No 5, pages 29-35.

844. B. N. Kabanov, "Mechanism of Extraction of Oxygen on Oxidized Electrodes," in book: Trudy 4-go soveshchaniya po elektrokhemii (Proceedings of 4th Conference on Electrochemistry), USSR Academy of Sciences, Moscow, 1959, pages 252-256. Bibliography of 13 titles.

845. I. V. Krotov, "Film Theory of Corrosion of Metals," BSE, Moscow, 1955, Vol 33, pages 242.

846. P. D. Lukovstev, "Toward a Theory of Processes Occurring on Oxidized Electrodes of Chemical Current Sources," in the book: Trudy... (See above 844), pages 773-780. Bibliography of 30 Titles.

847. Ye. A. Nikiforov and N. A. Godina, "Study of Composition and Structure of Surface Layers in Iron," Zh. prikl. khimii, 1936, Vol 9, page 225.

848. Ye. N. Paleolog and G. V. Akimov, "Investigation of the Electrochemical Structure of Protective Films on Metals," in book: Issledovaniya v oblasti elektrokhimicheskogo i korroziionnogo povedeniya metallov i spлавov (Investigations in the Field of the Electrochemical and Corrosive Behavior of Metals and Alloys), Oborongiz (State Institute and Publishing House of Defense Literature), Moscow, 1950, pages 235-257. Bibliography of 19 titles.

848a. Ye. N. Paleolog and G. V. Akimov, "Electrochemistry of Protective Films on Metals: Report 2: Investigations of the Behavior of Aluminum as a Cathode," Dokl. AN SSSR, 1946, Vol 51, No 8, pages 609-612.

849. V. V. Skorchelletti and B. M. Idel'chek, "Protective Properties of Products of Rusting of Metals," Korroziya i bor'ba s ney, 1935, Vol 1, No 2, pages 79-102.

850. Ye. I. Sovza, "On the Question of the Structure of Oxide Films on Iron," Zh. fiz. Khimii, 1935, Vol 6, No 747.

PART I, SECTION 7

SOIL CORROSION

1048. A. G. Agoshkov, Agressivnost' pochv i metody yeye opredeleniya dlya stroitel'nogo proyektirovaniya (Aggressiveness of Various Soils and Methods of Its Determination for Construction Planning), State Publishing House for Construction and Architecture, Moscow, 1955.

1049. G. A. Allakhverdiyev, Izucheniye faktorov pochvennoy korrozii i polyarizatsionnykh krivyykh u stali v zasolennykh pochvakh (Study of Factors of Soil Corrosion and Polarization Curves for Steel in Saline Soils), Author's Abstract of Paper Presented in Competition for Academic Degree of Candidate of Chemical Sciences, Institute of Chemistry of Azerbaydzhan SSR Academy of Sciences, Baku, 1951.

1050. G. A. Allakhverdiyev, "Determination of Corrosion Properties of Soils for Choice of Method of Protection of Underground Structures," Azerb. neft. kh-vo, 1956, No 2, pages 18-22, with Bibliography of 8 titles.

1051. V. S. Artamonov, "Determination of Corrosion Properties of Ground Soils," Zavodsk. laboratoriya, 1956, No 6, page 692.

1052. N. A. Bedritskiy, "Corrosion of Underground Metall Structures," in the book: Bor'ba s korroziyey -- bor'ba za metall (The Fight Against Corrosion Is the Fight for Metal), Moscow, 1935, pages 216-236. Bibliography of 7 titles.

1053. Yu. M. Belodvorskiy, V. P. Proferansov, V. P. Korogodskaya and L. Ya. Tsikerman, "Method of Calculating Corrosion Resistance of Insulated Pipe Lines in a Field of Vagabond Earth Currents," Gor. kh-vo Moskv, 1958, No 10, pages 28-31.

1054. Yu. I. Bokserman, K. S. Zarembo and Ye. P. Okhrimenko, "Investigations of Corrosion of the Inner Surface of Steel Gas Pipes," Tr. Vsesoyuzn. n.-i. in-t prirodnykh gazov, 1959, Issue 5, pages 304-322. Bibliography of 14 titles.

1055. V. V. Butov, "Corrosion of Metals By Scattered Particles of Solid Substances as Adsorbents of Gases and Water

Vapor and Measures to Combat It," Tr. Kazakh. gorno-metallurg. in-ta, No 4, 1939, pages 171-189.

1056. A. V. Byalobzheskiy, "Dual Role of the Factor of Aerability of Soil in Processes of Soil Corrosion," in the book: Zashchita truboprovodov ot korrozii (Protection of Pipe-Lines From Corrosion), Issue 1 of Collection: Nauchno-tekhnicheskiy sbornik po gazovoy tekhnike (Scientific-Technical Anthology on Gas Equipment), State Publishing House of Scientific-Technical Information, 1959, pages 19-23. With 4 figures and a bibliography of 14 titles.

1057. A. M. Vasil'yev, Issledovaniye gruntov dlya inzhenernykh tseley (Investigation of Ground Soils for Engineering Purposes), Institute of Water Supply, Sewer Systems, Hydraulic Engineering Structures and Hydrogeological Engineering, 1935.

1058. Ya. G. Galkin, "Corrosion of Underground Metallic Structures," in the book: Materialy 1-oy nauchno-tekhnicheskoy konferentsii kafedr MIIT (Papers at the 1st Scientific-Technical Conference of Departments of Moscow Electromechanical Institute of Railway Engineers), Moscow, 1936, page 138; republished in Metrostroy, 1936, No 2, pages 29-32.

1059. V. S. Daniyel'-Bek, "Investigation of Corrosion of Iron and Lead in Various Soils," ZH. prikl. khim., 1938, Vol 11, Issue 4, pages 567-87. Bibliography of 18 titles.

1060. V. S. Daniyel'-Bek, "Chemical Corrosion of Cable Casing and Armor in Various Soils," Tekhnika svyazi, 1938, No 1, pages 59-60.

1061. I. M. Yershov, Opredeleniye opasnosti elektrokorr-zii podzemnykh kabeley (Determination of Danger of Electrocorrosion of Underground Cables), Rail Transport Publishing House, Moscow, 1956, 94 pages with illustrative Bibliography: pages 91-93.

1062. I. M. Yershov, Sposoby obnaruzheniya i otsenki korrozii vodoprovodov bluzhdayushchimi tokami (Methods of Discovery and Evaluation of Corrosion of Water Pipes by Vagabond Earth Currents), Rail Transport Publishing House, Moscow, 1956, 16 page with illustrations.

1063. I. M. Yershov, "Electrocorrosion of Cable Casings (Communications Cables) by Vagabond Earth Currents," in the book: Bor'ba s korrozией -- bor'ba za metall (The Fight Against Corrosion), Moscow, 1956, page 11.

ion Is the Fight for Metal), Moscow, 1935, pages 237-243.

1064. F. M. Ivanov, "Investigation of Corrosion of Galvanized Iron Roofing Upon Contact With Moist Construction Materials, Soil, Clay and Sand," Zh. prikl. khimii, 1950, Vol 23, No 8, page 896.

1065. Instruktsiya po opredeleniyu korrozionno opasnykh zon na trasse podzemnogo truboprovoda (Instruction on Determination of Zone of Corrosion Danger on Bed of Underground Pipe-Lines), State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature, Moscow-Leningrad, 1954, 32 pages.

1066. A. N. Kaminskiy and M. G. Fel'dman, "Combatting the Influence on Electrical Attraction on Communications Lines and the Corrosion of Cables on Northern Railways," Signalizatsiya i svyaz' na zh.-d. transp., 1935, Nos 4-5, pages 7-10.

1067. K. P. Kozin, "Survey of Methods of Electrical Exploration in Investigation of Underground Corrosion of Metals," Trudy soveshchaniya po voprosam korrozii i bor'by s ney, Academy of Sciences of the USSR, Moscow-Leningrad, 1940, pages 179-201. Bibliography of 20 titles.

1068. K. P. Kozin and Ye. N. Kalenov, "Application of Methods of Electrical Exploration to Investigation of Corrosion of Underground Pipe-lines (for Oil). Byull. neft. geofiziki, 1936 No 3, pages 3-30. Bibliography of 21 titles.

1069. K. P. Kozin, "Comparison of Methods of Soil Resistance Determination in Corrosion Investigations," Korroziya i bor'ba s ney, 1939, Vol 5, Nos. 3-4, pages 37-43. Bibliography of 2 titles.

1070. V. V. Krasnoyarskiy, "On the Question of the Determination of the Corrosion State of Underground Main Pipe-Lines," in the book: Protection of Pipe-Lines From Corrosion (See 1056 above), Issue 1 of Scientific-Technical Anthology on Gas Equipment. pages 24-27. With 5 figures and a bibliography of 6 titles.

1071. V. V. Krasnoyarskiy, "Field Method of Determining Corrosion Activity of Ground Soils," in the book: Teoriya i praktika protivokorrozionnoy zashchity podzemnykh sooruzheniy (Trudy 6-go Vsesoyuznogo soveshchaniya po korrozii i zashchite metalloy) (Theory and Practice of Anti-Corrosion Protection of Underground Structures (Proceedings of 6th All-Union Conference

on Corrosion and Protection of Metals)), USSR Academy of Sciences Moscow, 1958, pages 241-245. Bibliography of 6 titles.

1072. I. V. Krotov, "On the Question of the Theory of Steel and Iron Corrosion Processes in the Earth," in the book: Trudy 2-oy konferentsii po korrozii metallov (Proceedings of the 2nd Conference on Corrosion of Metals), Vol 1, Academy of Sciences of the USSR, Moscow-Leningrad, 1940, pages 117-132. Bibliography of 16 titles.

1073. I. V. Krotov, Podzemnaya korroziya metallov i mery bor'by s ney (Underground Corrosion of Metals and Means of Combatting It), All-Union Chemical Society imeni D. I. Mendeleev Moscow, 1939, 28 pages with graphs (University of Physicochemists and Chemical Engineering imeni N. D. Zelinskiy).

1074. I. V. Krotov, "Underground Corrosion of Metals and Means of Combatting It," reviewed by I. Yershov, in Korroziya i bor'ba s ney, 1941, Vol 7, No 1, pages 58-59.

1074. I. V. Krotov, "Underground Corrosion of Steel and Iron Not Protected by Special Coatings," Trudy soveshchaniya po voprosam korrozii i bor'by s ney (Proceedings of Conference on Questions of Corrosion and Combatting of Corrosion), Academy of Sciences of the USSR, Moscow-Leningrad, 1940, pages 207-218.

1076. S. I. Kuznetsov, "Importance of sulphate-restoring Bacteria in Corrosion of Metal Equipment," in the book: Teoriya.. (See 1071 above), pages 246-251. Bibliography of 13 titles.

1077. I. A. Mamedov and D. M. Abramov, "Investigation of Corrosion Resistance of Various Brands of Steel in Apsheron Soils," Azerb. khim. zh., 1959, No 5, pages 57-61. Bibliography of 5 titles.

1078. I. A. Mamedov and D. M. Abramov, "Mechanism of Electrochemical Corrosion of Steel In Case of Various Sizes of Soil Particles," Azerb. khim. zh., 1959, No 4, pages 83-86.

1079. A. K. Miskarli, "On Soil Corrosion of Pipe-Lines," Izv. Azerb. fil. AN SSSR, 1941, No 3, pages 50-57.

1080. A. K. Miskarli, "On Determination of Soils Having Corrosion Danger," Izv. AN Azerb. SSR, 1946, No 6, pages 82-89; No 2, pages 79-83.

1081. A. K. Miskarli, Opredeleniye korroziionnoy aktivnosti

pochvy dlya zashchity nefteprovodov ot korrozii (Determination of Corrosion Activity of Soils for Protection of Oil Pipe-Lines from Corrosion). Author's Abstract of Dissertation in Competition for Degree of Candidate of Chemical Sciences, Institute of Chemistry, Azerbaydzhan SSR Academy of Sciences, Baku, 1944.

1082. Yu. N. Mikhaylovskiy, Issledovaniye elektrokhimicheskikh protsessov pochvennoy korrozii metallov (Investigation of Electrochemical Processes of Soil Corrosion of Metals), Author's Abstract of Dissertation in Competition for the Degree of Candidate of Chemical Sciences, Moscow, 1957, 16 pages (USSR Academy of Sciences, Institute of Physical Chemistry).

1083. Yu. N. Mikhaylovskiy and N. D. Tomashov, "Method of Determining Corrosion Properties of Ground Soils," in Book: Teoriya... (See 1071 above), pages 209-223. Bibliography of 15 titles.

1084. Yu. N. Mikhaylovskiy and N. D. Tomashov, "Method of Field Research on Corrosion Properties of Soils (On Problem of Protection of Underground Structures)," Zavodsk. laboratoriya, 1957, Vol 23, No 4, pages 450-454.

1085. V. F. Negreyev and G. A. Allakhverdiyev, "Study of Steel Polarization and Corrosion in Soil," Azerb. khim. zh., 1959 No 6, pages 41-45. Resume in Azerbaydzhan language.

1086. V. F. Negreyev and I. P. Sokolova, "Investigation of Methods of Determining Corrosiveness of Soils," in the book: Sbornik rabot molodykh spetsialistov (Collection of Works of Young Specialists), Trudy Azerb. n.-i. neftyanogo in-ta, No 35, Baku-Moscow, 1936, pages 36-74. Bibliography of 10 titles.

1087. V. F. Negreyev and G. A. Allakhverdiyev, Metody opredeleniya korroziionnykh svoystv pochvy (Methods of Determining Corrosive Properties of Soils), Baku, Academy of Sciences of Azerbaydzhan SSR, 1953, 92 pages with illustrative Bibliography: pages 89-90.

1088. M. L. Ozerskaya, Issledovaniye korrozii podzemnykh metallicheskh sooruzheniy metodami elektrorazvedki (Investigation of Corrosion of Underground Metallic Structures by Methods of Electrical Exploration), State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature, Moscow-Leningrad, 1950, 80 pages with illustrative Bibliography of 23 titles.

1089. N. Ye. Pleshkov, "Vagabond Earth Currents of Trolley and Power Installations and Corrosion of Lead Casings of Underground Communications Cables," Tekhnika svyazi, 1930, Nos 7-8, pages 7-10.

1090. V. A. Pritula, "Protracted Corrosion of Thick-Walled Pipe-Lines," in the book: Teoriya.... (See 1071 above), pages 252-259. Bibliography of 3 titles.

1091. V. A. Pritula, "Survey of Works on Corrosion of Main Oil Pipe-Lines in 1933-4," Neft. kh-vo, 1934, Vol 26, No 12, pages 64-65.

1092. V. A. Pritula, Opredeleniye korroziynosti pochv (Determination of Corrosiveness of Soils), United Scientific and Technical Publishing Houses, Moscow-Groznyy-Leningrad-Novosibirsk 1934, 79 pages with illustrations.

1093. V. A. Pritula, "Determination of Corrosiveness of Soils by the Shlyumberzhe Method," Korroziya i bor'ba s ney, 1941 Vol 7, No 1, pages 12-17. Bibliography of 7 titles.

1094. V. A. Pritula, "Formula of Speed of Local Corrosion, Korroziya i bor'ba s ney, 1939, No 3-4, pages 18-26.

1095. L. D. Razumov, "Estimate of Danger of Electrocorrosion of Underground Metallic Structures," Elektrichestvo, 1956, No 9, pages 67-73.

1096. M. M. Salam-Zade, "Methodology of Electrical Research of the Corrosion State of Underground Metallic Structures," Tr. Azerb. industr. in-ta, 1958, Issue 20, pages 147-151.

1097. A. V. Solov'yev, "Influence of Moisture on Corrosion Activity of Soils," Dokl. AN SSSR, 1940, Vol 27, No 2, pages 134-138. Bibliography of 11 titles.

1098. A. V. Solov'yev, "Investigation of Corrosion of Baku-Batumi Oil Pipe-Line," Neft. kh-vo, 1940, No 2, pages 42-46.

1099. A. V. Solov'yev, "Examination of Corrosion of Galvanized Iron Roofing Upon Contact with Moist Construction Materials, Soil, Clay and Sand," ZH. prikl. khim., 1949, Vol 22, Issue 1, pages 62-66.

1100. A. V. Solov'yev, "Acid Formation in Corrosion of Metals in Certain Ground Soils," ZH. khim. prom-sti, 1940, No 9, pages

42-45.

1101. A. V. Solov'yev, "Soil Corrosion of Metals (Iron and Steel), Protected by Coatings," Trudy soveshchaniya po voprosu korrozii i bor'by s ney, Academy of Sciences of the USSR, Moscow-Leningrad, 1940, pages 275-296. Bibliography of 46 titles.

1102. A. A. Spirin, "On the Question of the Automation of Electrical Measurements of Corrosion State of Oil-Gas Pipe-Lines and Other Underground Hook-Ups in Field Conditions," Tr. Azerb. industr. in-ta, 1958, Issue 20, pages 139-145. Bibliography of 5 titles.

1103. A. A. Spirin, V. S. Kal'man, M. M. Salam-Zade, and N. A. Tsekun, Metodika elektricheskikh issledovaniy korroziionnog sostoyaniya truboprovodov i kabeley (Methodology of Electrical Examinations of Corrosion State of Pipe-Lines and Cables), Azerbaydzhani Petrolaum Publishing House, Baku, 1954, 180 pages with ill. Bibliography: pages 175-176.

1104. N. D. Tomashov and P. V. Shchigolev, "Questions of Underground Corrosion (All-Union Conference in Moscow)," Vestn. AN SSSR, 1956, No 8, pages 108-110.

1105. N. D. Tomashov and Yu. N. Mikhaylovskiy, "On the Question of the Kinetics of Electrode Processes in Cases of Corrosion of Metals in the Soil," in the book: Problemy korrozii i zashchity metallov (Trudy 5-go Vsesoyuznogo soveshchaniya po korrozii i zashchite metallov. In-t fiz. khimii) (Problems of Corrosion and Protection of Metals (Proceedings of 5th All-Union Conference on Corrosion and Protection of Metals. Institute of Physical Chemistry), Academy of Sciences of the USSR, Moscow, 1956, pages 190-208. Bibliography of 24 titles.

1106. N. D. Tomashov and Yu. N. Mikhaylovskiy, "Kinetics of Cathode Processes in Cases of Corrosion of Materials in the Soil," Dokl. AN SSSR, 1956, Vol 106, No 6, pages 853-856. Bibliography of 8 titles.

1107. N. D. Tomashov and Yu. N. Mikhaylovskiy, "Mechanism of Anode Corrosion of Metals in Soils," Dokl. AN SSSR, 1959, Vol 124, No 6, pages 1285-1288. Bibliography of 5 titles.

1108. N. D. Tomashov and Yu. N. Mikhaylovskiy, "Mechanism of Electrochemical Corrosion of Metals in the Soil," Dokl. AN SSSR, 1956, Vol 108, No 4, pages 668-671. Bibliography of 5 titles.

1109. N. D. Tomashov, Podzemnaya (pochvennaya) korroziya metallov (Underground (Soil) Corrosion of Metals), Branch of VINITI, Moscow, 1956, 57 pages with illust. Bibliography of 35 titles.

1110. N. D. Tomashov, V. V. Krasnoyarskiy and Yu. N. Mikhaylovskiy, "Resistance of Carbonous and Slightly Alloyed Steels Under Conditions of Underground Corrosion," in the book: Zashchita... (See 1056 above), pages 8-13.

1111. N. D. Tomashov, "Theory of Corrosion of Metals in Ground Soils," in the book: Zashchita podzemnykh metallicheskiykh sooruzheniy ot korrozii (Protection of Underground Metallic Structures from Corrosion), Moscow, 1959.

1112. N. D. Tomashov, "Theory of Underground Corrosion of Metals," in the book: Teoriya... (See 1071 above), pages 5-35; also in Uspekhi khimii, 1957, Vol 26, No 2, pages 139-163.

1113. M. S. Trifel', "Methodology of Determination of Specific Resistances of Coatings and of Corrosion Properties of a Medium," in the book Teoriya... (See 1071 above), pages 224-240. Bibliography of 15 titles.

1114. I. N. Frantsevich, V. S. Chernovod and I. S. Gerenrot, Problemy korrozii metallov (Problems of Corrosion of Metals), USSR Academy of Sciences, Moscow, 1956.

1115. V. G. Chernashkin and A. Ye. Babayeva, Korroziya i zashchita stroitel'nykh staley v yestestvennykh usloviyakh (Corrosion and Protection of Building Steels Under Natural Conditions), Technical Information Section of Construction Research Institute of RSFSR Construction Ministry, Moscow, 1958, 20 pages with ill. Bibliography at end of book.

1164. [which however is an obvious misprint for 1116.] S. S. Itenberg, "Corrosion Properties of Soils and Discovery of Foci of Corrosion in Already Laid Pipe-Lines By Way of Measurement on the Surface," Vodosnabzh. i santekhn., 1936, No 4, pages 29-34.

PART I, SECTION 9

CORROSION IN AGGRESSIVE MEDIA

1270. I. A. Aguf and M. A. Dasoyan, "Effect of Silver on Anode Corrosion of Lead and Lead-Antimony Alloy in Sulphuric Acid," Vestn. elektroprom-sti, 1959, No 10, pages 62-67. Bibliography of 9 titles.

1271. I. A. Aguf and M. A. Dasoyan, "On the Effect of a Concentration of Sulphuric Acid on Anode Corrosion of Lead and Certain of Its Alloys," Vestn. elektroprom-sti, 1958, No 11, pages 36-39. Bibliography of 6 titles.

1272. I. Ye. Adadurov and Ye. A. Bauman, "Corrosive Action of Nitrose on Lead," ZH. prikl. khimii, 1935, Vol 8, No 1, pages 13-18. Bibliography of 17 titles.

1273. I. Ye. Adadurov, A. N. Tseytlin and L. M. Orlova, "Corrosion of Lead by Sulphuric Acid and Nitroses of Various Strengths," ZH. prikl. khimii, 1938, Vol 11, Issue 6, pages 912-925. Bibliography of 5 titles.

1274. N. S. Akulov and N. V. Khimchenko, "Effect of Temperature on Corrosion of Steel and Pig Iron in Acid Media," Anthology: Materialy v khim. mashinostroyenii (Papers on Chemical Machine Construction), Moscow, 1953, pages 117-123. Bibliography of 7 titles.

1275. I. P. Anoshchenko, "On the Effect of Certain Additives on Corrosion of Iron: Reports: 1. Corrosion in the Presence of Molecular Oxygen; 2. Corrosion in the Presence of Cations of Trivalent Iron," Tr. Novocherk. politekh. in-ta, 1954, Vol 25, pages 49-62. Bibliography: pages 55-56, 62. Also published in Soobshcheniya o nauchnykh rabotakh chlenov Vsesoyuznogo khimicheskogo obshchestva im. Mendeleyeva (Communications of Scientific Projects of Members of All-Union Chemical Society imeni Mendeleyev), 1954, Issue 1, pages 24-29, Issue 2, pages 33-37.

1276. I. P. Anoshchenko, "On the Influence of Temperature on the Corrosion of Iron in Sulphuric Acid in the Presence of Certain Additives," ZH. fiz. khimii, 1957, Vol 31, Issue 2, pages 315-320. Bibliography of 5 titles.

1277. I. P. Anoshchenko, "On Iron Corrosion in Sulphuric Acid in a Hydrogen and Oxygen Atmosphere in the Presence of Certain Additives," Nauch. trudy Novocherk. politekh. in-ta, Vol 27, 1956, pages 191-199. Bibliography of 6 titles.

1278. I. P. Anushchenko, "On Corrosion of Iron in Hydrochloric Acid in the Presence of Inhibitors at Various Temperatures," Report 1 in ZH. prikl. khim., 1957, Vol 30, Issue 3, pages 393-400. Bibliography of 5 titles.

1279. I. P. Anoshchenko, "On Corrosion of Iron in Hydrochloric Acid in the Presence of Inhibitors at Various Temperatures," Report 2, ZH. prikl. khimii, 1957, Vol 30, No 4, pages 523-528. Bibliography of 3 titles.

1280. I. P. Anoshchenko, "On Corrosion of Iron in 6N Hydrochloric Acid in the Presence of Inhibitors at Various Temperatures," Tr. Novocherk. politekh. in-ta, 1959, Vol 79, pages 135-141.

1281. L. I. Antropov, "Effect of Additives on Corrosion of Metals in Acid Media," in the Book: Problemy... (See 1105 above, page 40), pages 79-85. Bibliography of 11 titles.

1282. L. I. Antropov and A. T. Petrenko, "Corrosion of Iron and Zinc in 1N.H₂SO₄," ZH. prikl. khimii, 1958, Vol 31, Issue 12, pages 1849-1858. Bibliography of 23 titles.

1283. B. P. Artamonov and A. I. Shultin, "On the Mechanism of the Action of Additive Alloying Components (Copper, Silver, Molybdenum) on Chemical Constancy of Acid-Resistant Alloys on an Iron Base," in the book: Trudy 2-oy konferentsii po korrozii metallov (Proceedings of 2nd Conference on Corrosion of Metals), Vol 2, Academy of Sciences of the USSR, Moscow-Leningrad, 1943, pages 86-103. Bibliography of 29 titles.

1284. A. S. Afanas'yev, A. P. Brynza, L. I. Gerasyutina and G. I. Lysenko, "Effect of Urotropin on Oxygen Corrosion of Steel," Ukr. khim. zhurn., 1959, Vol 25, Issue 1, pages 73-80. Bibliography of 8 titles.

1285. S. M. Babitskaya and Kh. L. Tseytlin, "Effect of Haloid Ions on Corrosion of Stainless Steels in Acids," Tr. komissii po bor'be s korroziyey metallov. Issledovaniya po nerzhavayushchim stalyam (Proceedings of Commission for Combating Corrosion of Metals. Researches on Stainless Steels), 1956, Issue 2, pages 69-88. Bibliography of 20 titles.

1286. V. Yu. Babkina and M. R. Gerasimenko, "Examination of the Effect of the Sulphide Ion on Corrosion of Pig Iron and Steel in Solutions of the Soda Industry," Tr. n.-i. in-ta osnovnoy khimii, 1959, Vol 12, pages 235-258. Bibliography of 8 titles.

1287. N. A. Balashova and B. N. Kabanov, "Electrochemical Behavior of Zirconium in Sulphuric Acid," Dokl. AN SSSR, 1958, Vol 121, No 1, pages 126-28. Bibliography of 7 titles.

1288. S. A. Balezin and T. I. Krasovitskaya, "Effect of Concentrations of Acids on Their Aggressiveness in Respect of Carbonous Steels," Zh. prikl. khimii, 1951, Vol 24, No 2, pages 197-202.

1289. S. A. Balezin and V. B. Ratinov, "Corrosion of Nitrogenized Steel By Acids," Uch. zap. Mosk. ped. in-t im Lenina, 1957, Vol 99, Department of General and Analytic Chemistry Issue 6, pages 43-50. Bibliography of 22 titles.

1290. S. A. Balezin and V. B. Ratinov, "Linearly Selective Corrosion of Nitrogenized Steel by Sulphuric Acid Containing Additives," Dokl. AN SSSR, 1956, Vol 108, No 5, pages 903-904.

1291. S. A. Balezin and D. Ya. Solovey, "On Diffusion of Hydrogen in Steel With Varying Carbon Content Upon Acid Etching," Dokl. AN SSSR, 1950, Vol 75, No 6, pages 811-814.

1292. S. A. Balezin and A. G. Tulayeva, "On the Speed of Dissolution of Steel in Sulphuric Acid in Function of Pressure," Dokl. AN SSSR, 1951, Vol 78, No 1, pages 75-77.

1293. S. A. Balezin, I. V. Nikol'skiy and G. S. Parfenov, "On the Inhibition of the Dissolution of Iron in Nitric Acid," Uch. zap. Mosk. ped. in-ta im. Lenina, 1953, Vol 76, Department of General and Analytic Chemistry, Issue 5, pages 29-41. Bibliography of 24 titles.

1294. V. P. Batrakov, Korroziya konstruktivnykh materialov v agressivnykh sredakh (spravochnik) (Corrosion of Construction Materials in Aggressive Media (Reference Work)), State Publishing House of the Defense Industry, Moscow, 1952, 452 pages with Drawings.

1295. M. S. Bitnaya, "Examination of Etching Fragility of Iron Wire," in the book: Rezhim travleniya vann i kislot (Mode of Operation with Etching Baths and Acids). Corrosion of Metals,

Rostov-on-the-Don, 1936, pages 57-65.

1296. N. I. Gel'perin, Yu. P. Aronson, "Metal Alloys Which Are Constant in Hydrochloric Acid Media," ZH. prikl. Khimii, 1949, Vol 22, Issue 1, pages 45-55.

1297. N. I. Gel'perin, Yu. P. Aronson and P. M. Vainberg, "Chemical Resistance of New Brands of Steel in Organic Acids," Med. prom-st' SSSR, 1954, No 3, pages 28-33. Bibliography of 5 titles.

1298. V. I. Ginzburg, "Electrochemical Examination of Corrosion Behavior of Aluminum Bronze in Strongly Aggressive Media At Ordinary and High Temperatures," Tr. n.-i. in-ta sintet. spirtov i organich. produkt., 1958, pages 288-301. Bibliography of 12 titles.

1299. M. A. Dasoyan, "Influence of Structure of Lead on Its Corrosion in Sulphuric Acid," Dokl. AN SSSR, 1956, Vol 107, No 6, pages 863-866, with tables. Bibliography of 7 titles.

1300. F. A. Derkach, "Corrosion of Zinc-Tin Alloys in Hydrochloric Acid With Hydrogen Depolarization," Uch. zap. L'vovsk. un-ta, Vol 13, Chemistry Series, Issue 2, pages 91-102. Bibliography of 8 titles.

1301. Ya. V. Durdin, "On the Question of the Laws Governing the Speed of Dissolution of Metals in Concentrated Acids," ZH. obshch. khimii, 1951, Vol 21, No 5, page 801.

1302. Ya. V. Durdin, "Electrochemical Mechanism of Dissolution of Metals in Acids," Uch. zap. LGU, 1939, Vol 1, page 3. Also published in ZH. obshch. khimii, 1947, Vol 17, pages 844, 863.

1303. I. I. Zabolotnyy and A. P. Lizogub, "Gas Formation in Acid Corrosion of Zinc," ZH. prikl. khimii, 1958, Vol 31, Issue 5, pages 730-734. Bibliography of 10 titles.

1304. I. I. Zaring, A. I. Loginova and K. F. Petrova, "Testing Metallic Alloys for Chemical Resistance to Phosphorous Acid," Korroziya i bor'ba s ney, 1940, Vol 6, No 1, pages 4-9.

1305. A. M. Ivanov, "Corrosion of Wrought Iron Plates in Liquid and Vaporous Mixture of Nitric and Sulphuric Acids," Korroziya i bor'ba s ney, 1941, No 1, page 53.

1306. D. Ya. Kogan, "Corrosion of Welded Metals in Solut-

ions of Hydrochloric Acid," Izv. Vsesoyuzn. teplotekhn. in-ta, 1951, No 3, pages 27-29.

1307. D. Ya. Kogan, "Corrosion of Steel in Solutions of Phosphorous Acid," Teploenergetika, 1956, No 12, pages 23-24.

1308. V. M. Kadek and L. K. Lepin', "Electrode Potentials and Speed of Oxidation of Copper in Solutions of Sulphuric and Hydrochloric Acid," Izv. AN Latv. SSR, 1957, No 8 (121), page 129.

1309. I. I. Kalinichenko, V. D. Nikitin, M. P. Stromberg, et al., "Dissolution of Nickel in Nitric Acid," ZH. neorg. khim., 1959, Vol 4, Issue 11, pages 2443-2448. Bibliography of 14 titles.

1310. V. A. Karnitskiy and N. A. Golubev, "Acid Corrosion of Machinery Iron in the Presence of SO_2 and H_2S ," ZH. prikl. khim., 1935, Vol 8, No 5, pages 864-871. Bibliography of 3 titles.

1311. V. A. Kranitskiy and P. M. Temnikov, "Electrochemical Potential of Iron in Cases of Acid Corrosion," in the book Rezhim...., (See 1295 above), pages 66-83.

1312. I. P. Kirillov, N. S. Lapshin, "Corrosion of Iron in Sulphuric Acid and Nitroses," Khim. prom-st', 1949, No 10, pages 17-18. Bibliography of 12 titles.

1313. V. N. Kisel'nikov, "Corrosion and Electrochemical Behavior of Stainless Steels in Aggressive Media: Report 1: Corrosion of Stainless Steels in Nitric Acid," Tr. Ivanovsk. khim.-tekhnol. in-ta, 1958, Issue 7, pages 102-113. Bibliography on page 113.

1314. Kisel'nikov(V. N.)and B. M. Lapshin, "Corrosion and Electrochemical Behavior of Stainless Steels in Aggressive Media; Report 2: Electrode Potentials of Stainless Steels in Nitric Acid," Tr. Ivanovsk. khim.-tekhnol. in-ta, 1958, Issue 7, pages 114-120. Bibliography on page 120.

1315. V. N. Kisel'nikov and V. M. Lapshin, "Corrosion and Electrochemical Behavior of Stainless Steels in Aggressive Media: Report 3: Corrosion of Stainless Steels in Boiling Solutions of Zinc Chloride," Tr. Ivanovsk. khim.-tekhnol. in-ta, 1958, Issue 7, pages 121-125. Bibliography on page 125.

1316. V. I. Kisel'nikov and V. P. Uspenskiy, "Corrosion and Electrochemical Behavior of Stainless Steels in Aggressive

Media: Report 4: Corrosion of Stainless Steels in Sulphuric Acid," Tr. Ivanovsk. khim.-tekhnol. in-ta, 1958, Issue 7, pages 126-129.

1317. G. B. Klark and G. V. Akimov, "Nickel Alloys Which Are Constant in Hydrochloric Acid," Korroziya i bor'ba s ney, Vol 5, No. 1-2, 1939, pages 143-153.

1318. I. Ya. Klinov, "Effect of Chloride Alloys on Corrosive Action of Phosphorous Acid on Metals," Korroziya i bor'ba s ney, 1941, Vol 7, No 1, pages 23-27. Bibliography of 15 titles.

1319. I. Ya. Klinov, "Action of Sulphuric Acid and Sulphur Dioxide on Special Metals and Alloys of Soviet Industry," ZH. prikl. khimii, 1937, Vol 10, Issue 12, pages 1980-1982. Bibliography of 22 titles.

1320. I. Ya. Klinov, "On the Question of the Effect of Mineral Acids on Metals and Alloys," in the book: Trudy 2-oy konferentsii metallov (Proceedings of 2nd Conference on Metals), Vol 2, Academy of Sciences of the USSR, Moscow-Leningrad, 1943, pages 216-226.

1321. I. Ya. Klinov, "On Chemical Resistance of Aluminum in Certain Aggressive Media," Korroziya i bor'ba s ney, 1937, Vol 3, No 4, pages 298-307.

1322. M. V. Konradi, "Corrosion of Copper, Aluminum and Iron in Solutions of Acetic Acid and Ammonium Persulphate," Izv. vyssh. ucheb. zavedenii. Tsvet. metallurgiya, 1958, No 4, pages 165-171. Bibliography of 17 titles.

1323. G. I. Kukin and N. S. Lapshin, "Corrosion of Pig Iron and Iron in a Strong Nitrose," Khim. promyshlennost', 1951, No 12, pages 18-19. Bibliography of 7 titles.

1324. A. I. Kunina and T. M. Pelen, "Corrosion Resistance of Certain New Alloys in Acid and Saline Media," in the Anthology Korroziya i bor'ba s ney (Corrosion and the Combatting of It), Moscow, 1952, pages 105-120. Bibliography of 8 titles.

1325. N. S. Lapshin and T. I. Kunin, "Corrosion of Metals and Alloys in Sulphuric Acid," Khim. prom-st', 1953, No 10, pages 30-31.

1326. M. A. Loshkarev, V. K. Rostovtseva and A. M. Avrunina, "Effect of Surface-Active Substances on Corrosion of

Metals in Acid Media," Tr. Dnepropetr. khim.-tekhrol. in-ta, 1956, Issue 5, 1956, pages 135-146. Bibliography of 25 titles.

1327. A. G. Natradze, Yu. P. Aronson and Yu. M. Rozanova, "Corrosion Resistance of Copper in Boiling Fomic Acid," Med. prom-st' SSSR, 1953, No 2, pages 34-38.

1328. V. M. Novakovskiy, "On Corrosion of Iron in Concentrated Sulphuric Acid," ZH. prikl. khimii, 1952, Issue 3, pages 325-328. Bibliography of 12 titles.

1329. I. V. Oknin, "Electrochemical Examination of Corrosion of Metals in Acid Media in the Presence of Oxidizers," ZH. prikl. khimii, 1945, No 9-10, pages 494-504. Bibliography of 31 titles.

1330. P. S. Perminov and A. A. Putilov, "Corrosion of Metals by Hydrogen Sulphide and Methods of Combatting It," Byull. Gos. n.-i. khim. in-ta vysokikh davleniy, 1935, No 1, pages 6-10, Bibliography of 6 titles.

1331. V. Pershke, V. Ignat'yeva, "Effect of External Factors in Corrosion of Lead in Sulphuric Acid Production," Khimstroy, 1935, Vol 7, No 1 (62), pages 38-40.

1332. V. K. Pershke and M. A. Voroshilova, "Effect of Nitrogen Compounds on Corrosion of Metals by Inorganic Agents," Prom-st' orga n. khimii, 1938, Vol 5, No 8-9, pages 562-567.

1333. V. K. Pershke and A. S. Vinogradov, "Effect of Organic Substances on Corrosion of Metals by Inorganic Agents," Prom-st' organ. khimii, 1936, Vol 2, No 20, pages 419-423. Bibliography of 4 titles.

1334. V. K. Pershke, M. P. Kapostyn' and Ye. V. Yushmanov "The disintegrating Actions of Phosphorous Acid on Metal Alloys," Khimstroy, 1931, No 2(19), page 834.

1335. A. T. Petrenko, O vliyaniy nekotorykh dobavok na korroziyu zheleza i tsinka v kislykh sredakh (On the Effect of Certain Additives on the Corrosion of Iron and Zinc in Acid Media; Author's Abstract of Dissertation in Competition for the Degree of Candidate of Chemical Sciences at Novocherkassk Polytechnical Institute, Novocherkassk, 1956.

1336. S. A. Pletnev and S. L. Sosunov, "Kinetics of Dissolution of Metals in Acids in the Presence of Oxidizers," ZH.

fiz. khimii, 1939, No 7, pages 901-906.

1337. Ye. I. Pogorel'skiy, M.M. Flaks and S. M. Flaks, "Effect of Oxides of Nitrogen on Corrosion of Steel and Pig Iron in a Nitrose," Nauch. zap. Dnepropetr. un-ta, Vol 49, 1954, pages 11-19. Bibliography of 7 titles.

1338. M. N. Polukarov, "Effect of Selenium and Tellurium on Corrosion of Steel by Acids," Izv. vestest. n. in-ta pri Molotovsk. gos. in-te (News of Natural Sciences Institute Attached to Molotov State Institute), Vol 12, Issue 9, 1949, pages 393-400. Bibliography of 9 titles.

1339. M. N. Polukarov and T. P. Polukarova, "Corrosion of Steel by Hydrochloric Acid With Compounds of Arsenic In It," Uch. zap. Molotovsk. gos. un-ta, Vol 3, Issue 4, 1939, pages 101-113.

1340. S. Ya. Popov, "On the Corrosion of Zinc and Iron in Solutions of Acids," Tr. Novocherk. politekhn. in-ta, 1954, Vol 25, pages 27-36. Bibliography of 14 titles.

1341. V. F. Postnikov and I. P. Kirillov, "On the Question of the Inhibition of the Dissolution of Iron in Sulphuric Acid," Khimstroy, 1935, Vol 7, No 7 (68), pages 431-434. Bibliography of 9 titles.

1342. R. I. Ratner, "Etching of Nickel Non-Passivizing Anodes in a Sulphuric Acid Solution of Oxides of Iron," Tsvetnyye metall, 1959, No 6, pages 91-92. Bibliography of 7 titles.

1343. I. M. Sidorishin and Ye. V. Yampol'skiy, "Corrosion of Iron and Lead by Waste Acid After Nitration," Khim. mashinostroyeniye, 1937, No 1, page 41.

1344. D. V. Sokol'skiy and N. D. Zavorokhin, "On the Question of the Mechanism of the Action of Acetylene and Its Derivatives in Acid Corrosion of Steel," Vestn. AN Kazakh. SSR, 1957, No 8, pages 59-75. Bibliography of 29 titles.

1345. A. V. Titov, "On the Question of the Corrosion of Steel in the System Nitric Acid -- Acetic Acid," Tr. Ivan. khim.-tekhnol. in-ta, 1956, Issue 5, 1956, pages 80-81.

1346. A. V. Titov, "On the Question of the Corrosion of Steel in Mixtures of Sulphuric and Hydrochloric Acid," Tr. Ivan. khim.-tekhnol. in-ta, 1956, Issue 5, pages 82-84. Bibliography of 6 titles.

1347. A. V. Titov, "Physicochemical Analysis of the Nitric Acid -- Acetic Acid System. Atomic Concentration and Corrosive Properties of the System," Zh. obshch. khimii, 1954, Vol 24, Issue 1, pages 78-81. Bibliography of 7 titles.

1348. G. M. Frolov, "Chemical Resistance of Copper and Aluminum in Acetic Acid," Korroziya i bor'ba s ney, 1941, Vol 7, No 1, pages 27-30.

1349. Kh. L. Tseytlin and S. M. Babitskaya, "Corrosion of Steels by Hydrochloric Acid in Spheroidal State," Zh. prikl. khimii, 1958, Vol 31, Issue 1, pages 84-89. Bibliography of 6 titles.

1350. Kh. L. Tseytlin, "On the Inhibitory Action of Thiocarbonylde on the Corrosion of Steel by Hydrochloric Acid," Khim. promyshlennost', 1952, No 5, pages 18-21.

1351. T. A. Yakovlev, "Acid Corrosion of Iron and Steel," Yubil. sb. Nauch. rabot In-ta (Rost. mashinostr. in-t) (Jubilee Anthology of Scientific Works of the Institute (Rostov Machine Construction Institute)), 1940, Issue 1, pages 114-122.

PART II, SECTION 2

CORROSION INHIBITORS (RETARDERS)

2564. Ye. A. Andreyeva, I. L. Fayerman and V. F. Negreyev, "Influence of Corrosion Inhibitors on Corrosion Fatigue of Steel in Layered Waters of Oil Deposits," Azerb. neft. kh-vo, 1950, No 12, pages 15-18. Bibliography of 9 titles.

2565. I. P. Anoshenko, "On the Influence of Inhibitors on Corrosion of Iron in Acid Media in the Presence of Oxidizers," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1957, No 2, pages 45-58. Bibliography of 8 titles.

2566. L. I. Antropov, V. Grigor'yev and A. T. Petrenko, "Utilization of Datanof Electrocapillary Measurements in Investigation of Inhibitors of Acid Corrosion of Metals," Report 1: ZH. prikl. khimii, 1958, Vol 31, Issue 10, pages 1497-1503. Bibliography of 30 titles; Report 2: Tr. Novocherk. politekh. in-ta, Vol 69/83, 1958, pages 129-147.

2567. L. I. Antropov, "Surface Activity and Inhibitory Action of Organic Substances," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1957, No 2, pages 36-44. Bibliography of 26 titles.

2568. Yu. P. Aronson and V. M. Ioffe, "Retardation of Dissolution and Corrosion of Aluminum By Means of Surface-Active Substances," Report 1: Korroziya i bor'ba s ney, 1940, Vol 6, No 2, pages 1-7. Bibliography of 12 titles.

2569. Yu. P. Aronson and V. M. Ioffe, "Retardation of Dissolution and Corrosion of Aluminum By Means of Surface-Active Substances," Report 2: Comparison of Activity of Various Types of Inhibitors, Korroziya i bor'ba s ney, 1940, Vol 6, No 3, pages 8-16.

2570. Yu. P. Aronson and I. M. Berman, "Retardation of Dissolution and Corrosion of Aluminum By Means of Surface-Active Substances," Report 3. Korroziya i bor'ba s ney, 1940, Vol 6, No 4, pages 5-7.

2571. A. S. Afanas'yev and G. V. Zhuk, "Investigation of Protective Action of Mixtures of Corrosion Inhibitors in Neutral Media," ZH. prikl. khimii, 1959, Vol 32, Issue 1, pages 141-150.

2572. A. S. Afanas'yev and G. I. Lysenko, "On the Question of the Mechanism of Inhibitory Action of Urotropine on Acid Corrosion of Steel," Nauchn. dokl. vyssh. shkoly. Khimiya i khim. tekhnologiya, 1959, No 1, pages 52-56. Bibliography of 12 titles.

2573. E. O. Ayazyan, "Zero Charge Potential and Mechanism of Action of Inhibitors of Acid Corrosion of Iron," Dokl. AN SSSR, 1955, Vol 100, No 3, pages 473-476. Bibliography of 6 titles.

2574. N. N. Balashova and N. D. Tomashov, "Beryllium Hydroxide, an Inhibitor of Corrosion of Iron," in book: Problemy korrozii i zashchity metallov (Trudy 5-go Vsesoyuznogo soveshchaniya po korrozii i zashchite metallov. In-t fiz. khimii) (Problems of Corrosion and Protection of Metals (Proceedings of 5th All-Union Conference on Corrosion and Protection of Metals, Institute of Physical Chemistry)), USSR Academy of Sciences, Moscow, 1956, pages 136-141. Bibliography of 11 titles.

2575. S. A. Balezin and G. V. Kleshcheva, "Influence of Amines on Corrosion of Carbonous Steels in Neutral Solutions," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1957, No 2, pages 124-130.

2576. S. A. Balezin and G. S. Parfenov, "Influence of Certain Retarders on Speed of Dissolution of Carbonous Steel in Nitric Acid," ZH. prikl. khimii, 1954, Vol 27, Issue 9, pages 930-938. Bibliography of 30 titles.

2577. S. A. Balezin and V. P. Barannik, "Inhibitors of Atmospheric Corrosion (of Metals)," Dokl. AN SSSR 1954, Vol 95, No 2, pages 345-347.

2578. S. A. Balezin, "Inhibitors of Acid Corrosion,"

Uch. zap. Mosk. ped. in-t im. Lenina, Kafedra obshchey i analit. khimii (Department of General and Analytical Chemistry), 1953, Vol 76, Issue 5, pages 3-27. Bibliography of 26 titles.

2579. S. A. Balezin, Ingibitory korrozii i ikh primeneniye (Corrosion Inhibitors and their Use), Lenin-grad, 1959, 34 pages with drawings. Bibliography of 4 titles.

2580. S. A. Balezin, V. V. Romanov and N. I. Podobayev, "Investigation of the Influence of Certain Inhibitors on Corrosive Cracking of Metals," Dokl. AN SSSR, 1958, Vol 123, No 5, pages 902-905.

2581. S. A. Balezin, "Investigation of Inhibitors of Atmospheric Corrosion," Uch. zap. Mosk. ped. in-t im. Lenina, 1957, Vol 99, Kafedra obshchey i analit. khimii (Department of General and Analytical Chemistry), Issue 6, pages 99-107. Bibliography of 13 titles.

2582. S. A. Balezin and S. K. Novikov, "Investigation of Certain Etching Inhibitors," ZH. prikl. khimii, 1951, Vol 24, No 3, pages 283-288.

2583. S. A. Balezin, Korroziya metallov i bor'ba s ney (zamedliteli kislotnoy korrozii) (Corrosion of Metals and Ways of Combatting It (Retarders of Acid Corrosion)), Znaniye ("Knowledge" Publishing House), Moscow, 1953, 32 pages with illustrations.

2584. S. A. Balezin, "On the Choice of Methods of Investigation of Corrosion Inhibitors," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1958, No 7, pages 3-7.

2585. S. A. Balezin and I. I. Klimov, "On Inhibitors of Corrosion of Aluminum in Alkalis," Uch. zap. Mosk. ped. in-t im. Lenina, Kafedra obshchey i analit. khimii (Department of General and Analytical Chemistry), 1957, Vol 99, Issue 6, pages 63-65. Bibliography of 8 titles.

2586. S. A. Balezin, V. P. Barannik and I. N. Putilova, Primeneniye ingibitorov kislotnoy korrozii,

(Use of Inhibitors of Acid Corrosion), Goskhimizdat.
(State Publishing House of Chemical Literature), Moscow,
1948, 30 pages.

2587. S. A. Balezin, "Theoretical Problems and Practical Tasks in the Field of Corrosion Inhibitors," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1957, No 2, pages 4-13. Bibliography of 25 titles.

2588. S. A. Balezin and M. A. Ignat'yeva, "Elementary Organic Compounds of the Fifth Group of the D. I. Mendeleev Periodic System of Elements as Inhibitors of Acid Corrosion (of Metals)," Zh. prikl. khimii, 1956, Vol 29, Issue 11, pages 1647-1656. Bibliography of 6 titles.

2589. V. P. Barannik, M. A. Karepina, Ye. V. Bogatyreva, Ye. S. Degtyareva, "On the Reason for the Inhibitory Action of Organic Corrosion Inhibitors," Report 1: uch. zap. Orekhovo-Zuyev. ped. in-ta, Fak. fiz-mat i vestestvoznaniya (Faculty of Mathematics and Physics and Natural Science), 1955, Issue 1, pages 157-162. Bibliography of 19 titles.

2590. V. P. Barannik, M. A. Karepina, "On the Reason for the Protective Action of Organic Corrosion Inhibitors," Report 2: Uch. zap. Orekhovo-Zuyev. ped. in-t 1957, Vol 4, Fak-t vestestvoznaniya (Natural Science Faculty), Kafedra khimii (Chemistry Department), Issue 2, pages 3-70 with tables. Bibliography of 16 titles.

2591. S. D. Beskov, S. A. Balezin and V. P. Barannik, "On the Mechanism of the Protective Action of Inhibitors of Atmospheric Corrosion," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1957, No 2, pages 14-25.

2592. S. D. Beskov, L. I. Kochetkova and R. M. Golubeva, "Survey of Volatile Inhibitors," Uch. zap. Mosk. ped. in-t im. Lenina, 1957, Vol 99, Kafedra obshchey i analit. khimii (Department of General and Analytic Chemistry), Issue 6, 1957, pages 129-145. Bibliography of 54 titles.

2593. S. D. Beskov, L. I. Kochetkova and R. M. Golubeva, "Elasticity of Monoethanolamine and Its Carbonic Salt (As Inhibitors of Atmospheric Corrosion). Uch. zap. (Mosk. ped. in-t im. Lenina), 1957, Vol 99, Kafedra obshchey i analit. khimii (Department of General and Analytic Chemistry), Issue 6, 1957, pages 147-149.

2594. Ye. V. Bogatyreva and S. A. Balezin, "Sodium Salicylate as Retarder of Corrosion of Steel in Neutral Media," ZH. prikl. khimii, 1959, Vol 32, Issue 5, pages 1071-1076. Bibliography of 7 titles.

2595. Ye. V. Bogatyreva and S. A. Balezin, "Sodium Phenylacetate as Retarder of Corrosion of Metals in Neutral Media," Izv. vyssh. ucheb. zavedeniy. Khimiya i khim. tekhnologiya, 1959, Vol 2, No 1, pages 25-29, with tables. Bibliography of 9 titles.

2596. Vsesoyuznoye nauchno-tekhnicheskoye soveshchaniye po korrozii metallov. Sektsiya ingibitorov korrozii i zashchitnykh smazok (All-Union Scientific-Technical Conference on Corrosion and Protection of Metals. Section Dealing with Corrosion Inhibitors and Protective Lubricants). Tezisy dokladov i soobshcheniy (Abstracts of Reports and Communications). Anthology 3, Profizdat (Trade Unions' Publishing House), Moscow, 1958, 54 pages.

2597. S. A. Gintsberg, Ispol'zovaniye letuchikh zamedliteley dlya bor'by s korroziy metallov (Use of Volatile Inhibitors to Combat Corrosion of Metals), AN SSSR, filial VINITI, to pic 13, No M-59-26/4. Bibliography of 20 titles.

2598. S. A. Gintsberg, "On the Protective Action of a Volatile Corrosion Retarder, Dicyclohexylammonium Nitrite," ZH. prikl. khimii, 1959, Vol 32, issue 2, pages 459-462.

2599. R. M. Golubeva and S. D. Beskov, "Laboratory Methods of Investigating Atmospheric Corrosion Inhibitors," Sb. Vsesoyuzn. soveta nauch.-tekhn. o-v (Anthology of All-Union Council of Scientific-Technical Societies, 1958, No 7, pages 25-30.

2600. O. I. Golyanitskiy, "Influence of Concentrations of Volatile Inhibitors Insufficient for Complete Protection on Rate of Atmospheric Corrosion of Steel 20,"

Uch. zap. Chelyab. ped. in-ta, 1957, Vol 3, Issue 1, pages 57-66. Bibliography of 9 titles.

2601. I. O. Golyanitskiy, Issledovaniye letuchikh inhibitorov atmosferno korrozii (Investigation of Volatile Inhibitors of Atmospheric Corrosion), Avtoref. diss. na coiskaniye uchen. stepeni kand. khim. n. (Author's Abstract of Dissertation in Competition for Academic Degree of Candidate of Chemical Sciences), Mosk. gos. ped. in-t, Moscow, 1956.

2602. I. O. Golyanitskiy, Letuchiye inhibitory atmosferno korrozii chernykh metallov (Volatile Inhibitors of Atmospheric Corrosion of Ferrous Metals), Chelyabinsk. kn. izdat. (Chelyabinsk Publishing House), 1958, with graphs. Bibliography of 49 titles on page 75.

2603. V. P. Grigor'yev, K nekotorym voprosam zashchity zheleza ot korrozii s pomoshch'yu organicheskikh inhibitorov (On Some Questions of Protection of Iron from Corrosion Using Organic Inhibitors), Avtoref. diss. na coiskaniye uchen. stepeni kand. khim. n. (Author's Abstract of Dissertation in Competition for Academic Degree of Candidate of Chemical Sciences), Novocherk. politekhn. in-t (Novocherkassk Polytechnical Institute), Novocherkassk, 1958, 16 pages.

2604. V. P. Grigor'yev and L. I. Antonov, "On the Possibility of Increasing the Effectiveness of the Action of Adsorption Inhibitors in Neutral Media (Protection of Metals from Corrosion)," Tr. Novocherk. politekhn. in-ta, Vol 69 (83), 1958, pages 115-128. Bibliography of 13 titles.

2605. Ye. I. Gurovich and I. V. Krotov, "Sodium Hexamethaphosphate as Iron Corrosion Inhibitor in Saline Solutions," Zh. obshch. khimii, 1946, Vol 16, No 12, pages 1951-1960. 12 figures and Bibliography of 9 titles.

2606. Ye. I. Gurovich, "Linseed Oil Cake Extract as Iron and Steel Corrosion Inhibitor," Khim. prom-st', 1945, No 12, page 19; idem, Zh. prikl. khimii, 1946, No 2, pages 140-147. Bibliography of 7 titles.

2607. S. P. Gusev and I. M. Uziyenko, "New Inhibitor for Etching of Steel in Solutions of Sulphuric Acid," Khim. nauka i prom-st', 1958, Vol 3, No 5, pages 687-688.

2608. L. N. Dzhaparidze, "Study of the Influence of Certain Inhibitors on Manganese Corrosion," Soobshch. AN Gruz. SSR Vol 23, No 5, 1959, pages 547-552. Bibliography of 9 titles.

2609. N. D. Zavorokhin, Atsetilen i ego proizvedeniye kak inhibitory kislotnoy korrozii metallov (Acetylene and Its Derivatives as Inhibitors of Acid Corrosion of Metals), Avtoref..... (as above 2601). In-t khimii AN Kazakh. SSR, Alma-Ata, 1956, 15 pages with graphs.

2610. Inhibitory korrozii (Corrosion Inhibitors), Scientific Editors, Dr. of Chemical Sciences Prof. S. A. Balezin and Candidate of Chemical Sciences Instructor N. G. Klyuchnikov, Profizdat (Trade Unions' Publishing House), Moscow, 1937, 151 pages with illustr. Bibliography at end of articles.

2611. Z. A. Iofa, Ye. P. Andreyeva and N. V. Nikolayeva, "Influence of Surface-Active Substances on Rate of Electrochemical Reactions and Action of Inhibitors in Solution of Metals in Acids," in book: Trudy soveshchaniya po elektrokhemii (Proceedings of Conference on Electrochemistry), AN SSSR, Moscow, 1953, pages 294-306. Bibliography of 17 titles.

2612. Z. A. Iofa, "On the Mechanism of the Action of Inhibitors of Iron Corrosion in Acid Solutions and on the Role of Haloid Ions in this Process," Vestn. MGU, 1956, No 2, pages 139-151, 6 figures and Bibliography of 36 titles.

2613. Z. A. Iofa and E. I. Lyakhovetskaya, "On the Mechanism of the Action of Inhibitors on Hydrogen Resilience of Steel in Sulphuric Acid," Dokl. AN SSSR, 1952, Vol 86, No 3, pages 577-580. Bibliography of 15 titles.

2614. Z. A. Iofa, "On the Mechanism of the Action of Surface-Active Substances on the Electrochemical Reactions and Corrosive Processes," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1957, No 2, pages 26-35. Bibliography of 19 titles.

2615. V. V. Ipat'yev and E. I. Shmayenok, "Corrosion of High Pressure Boilers, Report 2: Protective Properties of Caustic Soda in Oxygen Corrosion of High Pressure Boilers," Korroziya i bor'ba s ney, 1935, Vol 1, No 2,

pages 121-135.

2616. V. V. Ipat'yev and E. I. Shmayenok, "Corrosion of High Pressure Boilers, Report 3: Passivizing Action of Chlorate Solutions in High Temperature Conditions. Corrosive Action and Effects of Solutions of Hypochlorites," Korroziya i bor'ba s ney, 1936, Vol 2, No 4, pages 315-331.

2617. A. G. Ismailov, "Influence of Oxygen on Corrosion of Steel in Water Containing Sodium Hexamethaphosphate," Tr. Azerb. n.-i. in-ta po dobyche nefti, 1957, Issue 6, pages 247-255. Bibliography of 14 titles.

2618. M. Karepina and B. Sushkov, "Use of Inhibitors of Corrosion for Protection of Inner Surfaces of Oil Tanker Tanks," Morskoy flot, 1958, No 12, pages 15-16.

2619. L. I. Kashtanov and N. V. Kazanskaya, "On the Mechanism of Inhibitory Action," ZH. obshch. khimii, 1954, Vol 24, Issue 9, pages 1597-1599. Bibliography of 12 titles.

2620. V. S. Kemkhadze and S. A. Balezin, "Inhibitory Action of Aldehydes," ZH. obshch. khimii, 1952, Issue 10, pages 1845-1855. Bibliography of 7 titles.

2621. N. Ye. Klaz, Protivokorrozionnoye passirovaniye izdeliy iz chernykh metallov (Anti-Corrosion Passivation of Wares Made of Ferrous Metals), VPTI, Moscow, 1957, 73 pages. Bibliography: pages 70-71.

2622. Konferentsiya po voprosam issledovaniya i primeneniya inhibitorov korrozii metallov (Moskva, yanv.-fevr. 1956. Obzor raboty (Conference on Questions of Investigation and Use of Metals Corrosion Inhibitors) (Moscow, January-February 1956. Survey of Work). Sbornik Kom-t po korrozii i zashchite metallov Vsesoyuzn. soveta nauchn.-tekhn. o-v (Anthology of Committee on Corrosion and Protection of Metals of All-Union Council of Scientific-Technical Societies), 1957, No 2, pages 146-150.

2623. A. B. Kocharyan, "Use of Caustic Soda and Ammonia to Combat Corrosion," Neft', 1936, page 26.

2624. V. V. Krasnoyarskiy, "Method of Processing Results of Investigations on Use of Inhibitors of Corrosion Jointly with Cathode Protection," Sb. Vsesoyuzn. sovet. nauchn.-tekhn. o-v., 1958, No 7, pages 52-61. Bibliography of 13 titles.

2625. T. I. Krasovitskaya, "Investigation of Wood-Tar Anti-Oxidant as Inhibitor of Acid Corrosion of Steels," Anthology (Mosk. lesotekhn. in-t.), 1957, Issue 5, pages 52-55 with tables.

2626. N. I. Kuznetsova and G. B. Rotmistrova, "On Methods of Protection from Corrosion of Wares made of Carbonous Steel Using Volatile Inhibitors and Inhibited Lubricants," Sb. Vsesoyuzn. sovet nauch.-tekhn. o-v., 1958, No 7, pages 48-51.

2627. K. S. Kuryndin, Ye. A. Nikonova and R. A. Kozyreva, "Anabasine, Inhibitor of Acid Corrosion of Steel," Izv. Sib. otd-eniya AN SSSR, 1959, No 3, pages 83-88.

2628. S. E. Livergant, "Protective Properties of Alkaline Phosphates Against Oxygen Corrosion of Boiler Iron in Water," Korroziya i bor'ba s ney, 1937, Vol 3, No 1, pages 73-74.

2629. S. E. Livergant and I. A. Feygel'son, "Corrosion of High Pressure Boilers. Report 5: Protective Properties of Sodium Phosphates Against Oxygen Corrosion of Boiler Iron in Water and in Solutions of Sodium Chloride," Korroziya i bor'ba s ney, 1937, Vol 2, No 2, pages 120-137. Bibliography of 15 titles.

2630. A. Ye. Loginov, "Investigation of Sodium Benzoate as Retarder of Corrosion of Metals in Aqueous Media," Uch. zap. Mosk. ped. in-t. im. Lenina, Vol 76. Kafedra obshchey i analit. khimii (Department of General and Analytic Chemistry), Issue 5, 1953, pages 57-67. Bibliography of 5 titles.

2631. B. Lyapunov, "Chemical Plating of Metals (On Inhibiting and Inhibitors of Atmospheric Corrosion)," Tekhnika molodezhi, 1955, No 5, page 26.

2632. Metody issledovaniya ingibitorov korrozii metallov (Methods of Investigation of Metals Corrosion

Inhibitors (Anthology under editorial direction of Dr. of Chemical Sciences Prof. S. A. Balezin, Candidate of Chemical Sciences V. B. Ratinov), Profizdat. (Trade Unions' Publishing House), Moscow, 1958, 136 pages with illustr. Bibliography at end of articles.

2633. V. O. Milyavskaya, Antikorroziionnaya obrabotka instrumenta (Anti-Corrosion Treatment of Tools), USSR Tool-Making Ministry, Moscow, 1950, 56 pages.

2634. V. O. Milyavskaya, "Use of Sodium Nitrite for Protection from Corrosion of Wares to be Stored for a Protracted Period," in book: Atmosfer'naya korroziya (Atmospheric Corrosion), Metallurgizdat (Metallurgy Industry Publishing House), Moscow, 1951, pages 197-214.

2635. A. R. Myagkova and I. N. Putilova, "Phenols as Inhibitors of Corrosion of Lead in Water," (Letter to the Editors), Zh. fiz. khimii, 1959, Vol 33, Issue 1, pages 228-229. Bibliography of 18 titles.

2636. I. V. Myakhlov and Z. N. Tin'yanov, "Investigation of Oilcake as Base for Etching," Korroziya i bor'ba s ney, 1940, Vol 6, No 4, page 53.

2637. V. F. Negreyev and A. G. Ismaylov, "Study of the Influence of Several Inhibitors on Speed of Corrosion of Steel in Flowing Sea Water," Izv. vyssh. ucheb. zaved. Neft' i gaz, 1958, No 9, pages 111-117. Bibliography of 7 titles.

2638. K. A. Nesmeyanova and S. A. Gintsberg, "On the Question of the Mechanism of Protective Action of Ethanolamine," Tr. Gos. n.-i. in-ta khim. prom-sti, 1955, Issue 3, pages 26-33.

2639. I. Oknin, "Electrochemical Investigation of the Influence of Organic Compounds which are Oxidizers on Corrosion of Metals in Acid Media," Zh. fiz. khimii, 1939, No 5, pages 631-645.

2640. V. P. Persiantseva and I. L. Rozenfel'd, "Laboratory Methods of Investigation of Volatile Inhibitors," Tr. In-ta fiz. khimii (AN SSSR), Issue 7 (5), Moscow, 1959, pages 51-50 [?]. Bibliography of 11 titles. Idem in Zavodsk. laboratoriya, 1958, Vol 24, No 6, pages 832-836. Bibliography of 7 titles.

2641. A. T. Petrenko and L. I. Antropov, "Combined Protection of Zinc in Acid Media," Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies, 1957, No 2, pages 82-83. Bibliography of 17 titles.

2642. A. T. Petrenko and L. I. Antropov, "On the Nature of the Influence of the pH Factor of an Environment on Corrosion of Iron in the Presence of Inhibitors," ZH. prikl. khimii, 1958, Vol 31, Issue 6, pages 949-951. Bibliography of 9 titles.

2643. B. Ye. Piskorskiy and Ye. M. Il'ina, "Protective Action of Volatile Inhibitors and Anti-Corrosion Lubricants in Context of Tropical Temperatures and High Humidity," ZH. prikl. khimii, 1959, Vol 32, Issue 1. Bibliography of 5 titles.

2644. I. N. Putilova and S. A. Balezin, "Second Theoretical Conference on Metals Corrosion Inhibitors (Moscow, Jan.-Feb. 1956)," ZH. fiz. khimii, 1957, Vol 31, Issue 2, pages 522-523.

2645. I. N. Putilova, S. A. Balezin and V. P. Barannik, Inhibitory korrozii metalloy (Metals Corrosion Inhibitors), Goskhimizdat (State Publishing House of Chemical Literature), Moscow, 1958, 184 pages with illustr. Bibliography at end of chapters.

2646. I. N. Putilova, S. A. Balezin and V. P. Barannik, Inhibitory korrozii metalloy (Metals Corrosion Inhibitors), Goskhimizdat (State Publishing House of Chemical Literature), Moscow, 1958, reviewed by I. Ya. Klinov and Ye. M. Zaretskiy in Khim. mashinostroyeniye, 1959, No 2, pages 47-48. Idem. G. P. Khomchenko, ZH. Prikl. khimii, 1959, Vol 32, pages 1647-1648.

2647. I. N. Putilova, "Metals Corrosion Inhibitors in Non-Aqueous Solutions," Anthology....(as above 2622), pages 136-145. Bibliography of 29 titles.

2648. I. N. Putilova, "Method of Processing Experimental Data on Corrosion Inhibitors," Anthology of All-Union Council of Scientific-Technical Societies, 1958, No 7, pages 20-25. Bibliography of 14 titles.

2649. I. N. Putilova and L. G. Gindin, "On the

Method of Classification of Metals Corrosion Inhibitors," ZH. prikl. khimii, 1955, Vol 28, Issue 12, Bibliography of 13 titles.

2650. I. N. Putilova, "Temperature Factor of Speed of Corrosion in Presence of Inhibitors," (Letter to Editors), ZH. fiz. khimii, 1959, Vol 33, Issue 1, pages 226-227, Bibliography of 8 titles.

2651. M. A. Rozenberg, L. M. Fal'kovskaya and F. B. Yurovskaya, "Electrochemical Protection of Iron in Various Composition waters in Presence of Retarders. Report 2," Nauch. zap. (Dnepropetr. un-t.), 1954, Vol 49, pages 21-24.

2652. I. L. Rozenfel'd and V. P. Persiantseva, "Influence of Adsorption of Volatile Inhibitors on Electrochemical Behavior of Iron," Dokl. AN SSSR, 1958, Vol 122, No 2, pages 260-263.

2653. I. L. Rozenfel'd, "Corrosion Retarders in Neutral Media," AN SSSR Publication (as Zamedliteli korrozii v neytral'nykh sredakh), Moscow, 1953, 248 pages with illustr. Bibliography of 143 titles, pages 240-244.

2654. I. L. Rozenfel'd and V. P. Persiantseva, "Corrosion Inhibitors," Khim. nauka i prom-st', 1958, Vol 3, No 4, pages 500-505. Bibliography of 43 titles.

2655. I. L. Rozenfel'd and G. V. Akimov, "On the Question of the Mechanism of Protection of Iron from Corrosion in Water by Chromates. Influence of Adding $K_2Cr_2O_7$ to Water on Speed of Electrode Processes," Dokl. AN SSSR, 1949, Vol 67, No 5, pages 879-882.

2656. I. L. Rozenfel'd and G. V. Akimov, "On the Question of the Mechanism of Protection of Iron from Corrosion in Water by Chromates. Influence of Adding $K_2Cr_2O_7$ to Water on Electrode Potential of Iron," Dokl. AN SSSR, 1949, Vol 67, No 4, pages 667-669.

2657. I. L. Rozenfel'd, "Mechanism of Protection of Iron from Corrosion by Use of Sodium Nitrite," Dokl. AN SSSR, 1951, Vol 78, No 3, pages 523-526. Bibliography of 5 titles.

2658. I. L. Rozenfel'd and G. V. Akimov, "Mechanism

of Protection of Iron from Corrosion by Chromates,"
tr. In-ta fiz. khimii AN SSSR, Issue 2 (1), 1951, Moscow,
pages 203, 226, Bibliography of 11 titles.

2659. I. L. Rozenfel'd, "Mechanism of Protection
of Iron Apparatus from Corrosion Using Retarders and
Protectors," Dokl. AN SSR, 1951, Vol 79, No 3, pages 471-
474.

2660. I. N. Rudberg, and P. I. Roshkovich, "Pract-
ical Use of Inhibited Paper (to Protect Needles from Corr-
osion," Anthology....(as above 2622), No 1, pages 131-134.

2661. N. D. Rus'yanova and M. V. Gofman, "On the
Mechanism of the Inhibitory Action of Heterocyclic Nitrous
Bases in Etching of Steel in Sulphuric Acid in the
Presence of Certain Anions," ZH. prikl. khimii, 1957,
Vol 30, Issue 10, pages 1564-1569.

2662. L. V. Sergeyev, S. N. Churin and I. S.
Soloveychik, "Protection of Metal by Certain Organic
Compounds," in the book: Trudy 1-y konferentsii po korro-
zii metallov pri AN SSSR (Proceedings of 1st Conference on
Corrosion of Metals at USSR Academy of Sciences), 1936,
pages 743-755.

2663. I. N. Smirnova and S. A. Balezin, "Method of
Investigation of Inhibitors of Corrosion of Internal
Combustion Motor Cylinders," Anthology of All-Union
Council of Scientific-Technical Societies, 1958, No 7,
pages 126-135.

2664. I. S. Soloveychik, Praktika primeneniya
prisadok pri khimicheskoy obrabotke chernykh metallov
(Practice of Use of Additives in Chemical Treatment of
Ferrous Metals), KOIZ (United Cooperative Publishing
House), Leningrad-Moscow, 1935, 184 pages with illustr.

2665. A. V. Solov'yev, "Electrochemical Investig-
ation of Anti-Corrosion Properties of Sodium Nitrate,"
Dokl. AN SSSR, 1937, Vol 14, No 5, pages 295-298.

2666. I. Ye. Titova, "Study of Inhibitory Pro-
perties of Certain Industrial Additives," ZH. prikl. khimii,
1957, Vol 30, No 4, pages 576-581. 5 figures. Biblio-
graphy of 8 titles.

2667. N. S. Torocheshnikov, S. L. Azimova and I. Ya. Klinov, "On Corrosion of Steel by Refrigerator Solutions in the Presence of Sodium Nitrite," Khim. prom-st', 1953, No 10, pages 28-30. Bibliography of 5 titles.

2668. A. V. Turkovskaya and I. S. Kladchikova, "Retardation of Corrosion by Sodium Benzoate," Sb. nauchn. trudov (Mosk. in-t tsvet. metall. i zolota), 1958, No 29, pages 189-182.

2669. A. S. Fomenko and O. K. Skarre, "Retarding Action of Inhibitors in Etching of Metals," ZH. fiz. khimii, 1939, Vol 13, Issue 9, pages 1297-1303. Bibliography of 17 titles.

2670. Kh. L. Tseytlin, "On the Use of Inhibited Hydrochloric Acid, (To Decrease Corrosion of Steel)" Khim. prom-st', 1951, No 7, pages 7-10.

2671. N. G. Chen, "Influence of Certain Ions on the Protective Action of Phosphate Retarders of Corrosion (of Metals)," ZH. prikl. khimii, 1959, Vol 32, Issue 7, pages 1523-1528.

2672. B. M. Shubin, Antikorroziionnaya zashchita stal'nykh detaley nitritom natriya (Anti-Corrosion Protection of Steel Parts by Sodium Nitrite), Mashgiz (State Scientific and Technical Publishing House of Literature on Machine Building), Moscow-Sverdlovsk, 1957, 19 pages.

2673. G. A. Shutova, Primeneniye letuchikh ingibitorov korrozii metallov dlya konservatsii krupnogabaritnykh izdeliy (Use of Volatile Inhibitors of Corrosion of Metals for Conservation of Large-Dimensioned Items), Leningrad, 1958, 42 pages.

2674. I. S. Yaroshinskiy, "Investigation of Corrosion Inhibitors by Electrical Impulse Method," Anthology of All-Union Council of Scientific-Technical Societies, 1958, No 7, pages 40-48.

PART II, SECTION 7

PRESERVATIVE COATINGS AND LUBRICANTS

2893. S. A. Balezin, V. P. Barannik, K. A. Nesmeyanova and S. A. Gintsberg, "Corrosion Factors and Method of Protection of Needles in Cases of Protracted Storage," Uch. zap. Mosk. ped. in-t im. Lenina, 1957, Vol 99. Kafedra obshchey i analit. khimii (Department of General and Analytical Chemistry), Issue 6, pages 151-157.

2894. M. V. Borodulin and V. N. Nemchinova, "Lubricants as a Protection Against Corrosion," Zh. khim. prom-sti, 1937, Vol 14, No 24, pages 1708-1719. Bibliography on pages 1718-1719.

2895. Bor'ba s korroziyey instrumentov i tochnykh priborov v proizvodstve i pri khraneni. Materialy proizvodstvenno-tekhnicheskogo soveshchaniya (Combating Corrosion of Tools and Precision Instruments in the Production Line and in Storage. Materials of a Production-Engineering Conference), edited by N. A. Izgaryshev, ONTI (United Scientific and Technical Publishing Houses), Moscow, 1935, 92 pages.

2896. Varentsov and Batalova, "Methods of Testing for Preservative Properties of Anti-Corrosive Lubricants and Vaselines," Zavodsk. laboratoriya, 1937, Vol 6, No 8, pages 978-982.

2897. G. V. Vinogradov, M. M. Kusakov, Yu. S. Zaslavskiy, E. A. Razumovskaya, "Investigation of Interaction of Lubricant Oils with Metals," Vestn. AN SSSR, 1955, No 9, pages 35-40.

2898. Vremennyy rukovodnyashchiy material po zashchitnym pokrytiyam, konservatsii, upakovke i vyboru materialov dlya izdeliy, prednaznachennykh k ekspluatatsii v usloviyakh tropicheskogo klimata (Provisional Instructions on Protective Coatings, Conservation, Packing and Selection of Materials for Products Destined for Use in a Tropical Climate), TsBTI (Central Office of Economic Information), Moscow, 1957, 75 pages with Bibliography on page 75.

2899. V. Ye. Glushnev and L. V. Belousova, "Anti-Corrosion Properties of Products of Oxidizing Cracking and Reforming," Tr. In-ta "nefti" (AN SSSR), 1955, Vol 6, page 20-22.

2900. M. S. Goncharevskiy and N. V. Bogoyavlenskaya, "Anti-Corrosion Protection of Piping During Transport and Storage," Stal', 1956, No 7, pages 619-623.

2901. A. Ya. Drinberg, "Formation and Aging of Anti-Corrosion Coatings Containing Oils," in the book: Trudy 2-y konferentsii po korrozii metallov (Proceedings of 2nd Conference on Corrosion of Metals), Vol 2, Moscow-Leningrad, 1943, pages 153-158. Bibliography of 36 titles.

2902. Ye. I. Dyrmont and I. N. Chapurskiy, "Problem of Protection of Metallic Wares from Corrosion in Cases of Protracted Storage in Buildings Which Cannot Be Heated," Korroziya i bor'ba s ney, 1939, Vol 5, No 1-2, pages 166-180.

2903. P. I. Kazhdan, Zashchitnyye smazki (Protective Lubricants), Moscow, 1949, 43 pages with illustr.

2904. P. I. Karasik and T. A. Masterkov, "On the Question of Determination of Protective Capacity of Lubricants," Zavodsk. laboratoriya, 1935, Vol 4, No 1, pages 79-82.

2905. P. I. Karasik and T. A. "On Wrong Methods of Determining the Viscidity of Anti-Corrosion Lubricants," Zavodsk. laboratoriya, 1937, Vol 6, No 4, pages 522-524. Bibliography of 8 titles.

2906. V. V. Karetnikov, "Emulsive Anti-Corrosion Lubricants for Spindles," Tekstil'n. vestn., 1939, No 6-7 (11-12), pages 45-46.

2907. T. A. Komarova, Konservatsiya mashin metodom paspyleniya smazyvayushchikhveshchestv (Preservation of Machines by Method of Dusting with Lubricating Substances), TsBTI (Central Office of Economic Information), Moscow, 1958, 7 pages with drawings.

2908. A. I. Levin and A. V. Pomosov, "Waterproofing of Metallic Powders as a Means of Protecting Them from Corrosion," Dokl. AN SSSR, 1950, Vol 72, No 6, pages 1072-1078. Bibliography on page 1078.

2909. I. A. Levin, "Protective Capacity of Anti-Corrosion Lubricants," Korroziya i bor'ba s ney, 1941, Vol 7, No 2, pages 18-26. Bibliography of 39 titles.

2910. I. A. Levin, "Porosity of Anti-Corrosion Lubricants," Korroziya i bor'ba s ney, 1940, Vol 6, No 3, pages 16-22. Bibliography of 2 titles.

2911. I. D. Livshits, Zashchitnyye smazki s gidrofobnymi kremniyorganicheskimi dobavkami (Protective Lubricants with Hydrophobic Silicon-Organic Additives), Moscow, 1959, 10 pages with illustr. (AN SSSR, filial VINITI. Topic 13, No M-59-306/28.

2912. V. L. Martynov, "On the Mechanism of the Protective Action of Consistent Lubricants Against Atmospheric Corrosion," Tr. Vsesoyuzn. n.-i. in-ta po pererabotke nefti i gaza i polucheniyu iskusstv. zhidkogo topliva, 1958, Issue 7, pages 414-433. Bibliography of 37 titles.

2913. T. A. Masterkov, "On Methods of Testing Anti-Corrosion Lubricants," Zavodsk. laboratoriya, 1938, Vol 7, No 3, pages 322-327. Bibliography of 4 titles.

2914. T. A. Masterkov, "Preservative Anti-Corrosion Lubricants," Neft', 1938, No 3, pages 15-18.

2915. V. O. Milyavskaya, Zashchita ot korrozii izdeliy iz chuguna pri dlitel'nom khraneni i transportirovke (Protection From Corrosion of Wares Made out of Pig-Iron in Cases of Protracted Storage and Transport), TsBII (Central Office of Economic Information), Moscow, 1955, 28 pages with illustr.

2916. Ye. I. Mokeyeva, "Corrosive Action of Oily Antiseptic Solutions and of Preserved Wood on Metal," Konservirovaniye drevesiny, Moscow, 1939, pages 93-100.

2917. V. N. Nemchinova, "Lubricant Materials as Protection Against Corrosion," Report 1: ZH. khim. prom-sti, 1938, Vol 15, No 1, pages 48-51; Report 1, 1937, Vol 14, No 2.

2918. K. A. Nesmeyanova and S. A. Gintsberg, "Factors of Corrosion and Means of Protecting Needles in Cases of Protracted Storage," Tr. N.-i. in-ta khim. prom-sti, 1955, Issue 2, pages 23-38.

2919. Novyye tekhnologicheskiye protsessy metallo-pokrytiy, okraski i konservatsii detaley (New Technological Processes of Metal Coating, Dyeing and Preservation of Parts," Otd. tekhn. propagandy (Department of Technological Propaganda), Moscow, 1958, 86 pages with illustr. one table.

2920. "On the Use of Dyes and Preservative Lubricants (Protection of Artillery From Corrosion)," Tekhnika i vooruzheniye, 1936, No 4, pages 47-52.

2921. Ye. V. Pustovalov, "On Protection of Metals from Corrosion During Storage. Report at Soviet-German Conference on Varnish and Dye-Paint Coatings," Russko-germ. vestn. nauki i tekhniki, 1934, No 11, pages 49-53.

2922. K. S. Ramayya and R. Kh. Sil's, "Method of Determining Potential Corrosive Aggressiveness of Oil," Anthology of All-Union Council of Scientific-Technical Societies (Sb. Vsesoyuzn. soveta nauch.-tekhn. o-y), 1959, No 7, pages 81-89.

2923. K. S. Ramayya, R. Kh. Sil's and R. D. Ben-Yakir, Metod opredeleniya potentsial'noy korrozionnosti masel (Method of Determining Potential Corrosiveness of Oils), Mashiz (State Scientific and Technical Publishing House of Literature on Machine Building), Moscow, 1956, 61 pages with illustr.

2924. K. S. Ramayya, "Method of Investigation of Actual Corrosive Aggressiveness of Oils," Anthology... (See above under 2922), 1958, No 6, pages 74-81.

2925. P. I. Sanin, L. F. Chernyavskaya and I. F. Foyt, "On a Method of Determining Corrosiveness of Lubricant Oils," Zavodsk. laboratoriya, 1957, Vol 23, No 6, pages 696-697.

2926. V. V. Skorchelletti and V. Ye. Piskorskiy, "Investigation of Certain Liquid Lubricants To Protect Steel Wares from Corrosion in the Process of Production and Storage," ZH. prikl. khimii, 1954, Vol 27, Issue 3, pages 314-318. Bibliography of 5 titles.

2927. V. V. Sokolovskaya, Protivokorroziionnyye pokrytiya rezhushchego instrumenta dlya dlitel'nogo khraneniya i transportirovki (Anti-Corrosion Coatings of

Cutting Tools For Protracted Storage and Transportation),
TsBTI (Central Office of Economic Information), Moscow,
1954, 36 pages.

2928. A. Sushinskiy, "Instrument for Preservation
of Inner Surface of Engine Parts," Vestn. vozdushnogo
flota, 1939, No 11, pages 64-66.

2929. M. Yudovskiy, "Method of Preserving Metallic
Surfaces From Corrosion Under Any Storage Circumstances,"
Mekhaniz. i motoriz. RKKA, 1936, No 4, page 52.

PART II, SECTION 9 a

NON-METALLIC COATINGS

GENERAL QUESTIONS

3855. I. V. Abramova and G. V. Mel'vitskiy, "Increasing the Mechanical Durability and Chemical Resistance of Faktis For Repair of Rubberized Apparatus," Korroziya i bor'ba s ney, 1938, Vol 4, No 5-6, pages 389-393.

3856. M. K. Amusin, "First Results of Incorporation of Phaolite on Production Scale," Korroziya i bor'ba s ney, 1939, Vol 5, No 3-4, pages 119-132. Bibliography of 27 titles.

3857. Ye. I. Annenkov and L. M. Ancharov, "Anti-Corrosion Protection of Pokers with Textolite and Bakelite," Korroziya i bor'ba s ney, 1940, Vol 6, No 3, pages 51-54.

3858. Ye. I. Annenkov, "Non-Metallic Corrosion-Resistant Coverings for Galvanized Apparatus," Korroziya i bor'ba s ney, 1940, Vol 6, No 4, pages 42-47.

3859. M. V. Borodulin, "Non-Metallic Protective Coatings of Metal," in the Anthology: Korroziya metallov i bor'ba s ney (Corrosion of Metals and How to Combat It), Moscow-Leningrad, 1932, pages 131-154. Bibliography of 67 titles.

3860. G. S. Bryzgalov and B. A. Aronov, "Methods of Mechanical Application of Protective Coverings for the Purpose of Protecting Materials from Corrosion," Vestn. inzh. i tekhn., 1934, No 11, pages 542-543.

3861. V. L. Vinarskiy, "On the Question of the Use of Perchlorovinyl Coatings in Coke Plants," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 4 (9), pages 24-25.

3862. V. L. Vinarskiy, "Experience at Use and Repair of Anti-Corrosive Sheaths in Sulphate Sections,"

Soobshch. Giprokoksa, Issue 18, 1957, pages 33-37.

3863. V. L. Vinarskiy, "Anti-Corrosion Coating of Etching Baths with Polyisobutylene Underlayer," Stal', 1957, No 3, pages 272-273.

3864. V. Ye. Volodin, G. V. Mil'vitskiy and I. V. Abramova, "Faktis As a Material for Anti-Corrosion Coverings," Korroziya i bor'ba s ney, 1938, Vol 4, No 5-6, pages 355-365. Bibliography of 4 titles.

3865. V. Ye. Volodin, "Chemically Resistant Glues," Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 4 (9), pages 9-11.

3866. V. M. Gevorkyan, Usilennyye zashchitnyye pokrytiya (Reinforced Protective Coatings), Moscow, 1956, 22 pages with illustr. (Filial VINETI, Topic 23, No I-56-83). Bibliography on page 23.

3867. V. I. Gladushko, "Chemically Resistant Coatings," Elektr. stantsii, 1954, No 10, pages 51-52.

3868. Ye. Ya. Gol'dshteyn, Tekhnologiya nemetallicheskih pokrytiy. Tekhnika okraski (Technology of Non-Metallic Protective Coatings. Dyeing Engineering), Khimteoretizdat (Publishing House for Theoretical Chemical Literature), Leningrad, 1937, 255 pages with illustr. Bibliography on page 251.

3869. M. Ye. Grishin, "On the Question of Protection of Apparatus by Non-Metallic Chemically Resistant Materials," Inform. byull. po protivokorroziynoy tekhnike, 1956, No 5, pages 4-7.

3870. Ye. I. Gromov, "Use of Non-Metallic Coatings to Protect from Corrosion Regenerators of Sodium Arsenate Desulphurizing Shops," Soobshch. Giprokoksa, Issue 18, 1957, pages 46-53.

3871. A. Ya. Drinberg, Ye. S. Gurevich and A. V. Tikhomirov, Tekhnologiya nemetallicheskih pokrytiy (Technology of Non-Metallic Coatings), Goskhimizdat (State Publishing House for Chemical Literature), 1957, Leningrad, 588 pages with illustr.

3872. G. N. Duderov, V. I. Ryzhikov, "On the Use of

Aluminum Phosphates as Binders for High Fire Proof Coatings of Metal," Tr. Mosk. khim.-tekhnol. in-ta im. D. I. Mendeleyeva, 1957, Issue 24, pages 190-198.

3873. S. I. D'yachkovskiy, "Chemical Colloid Coating of Metals," Kolloidn. zhurn., 1937, Vol 3, No 2, pages 169-179. Bibliography of 2 titles.

3874. A. F. Yevseyev and Ye. N. Galkin, "Experience of Coating Metallic and Concrete Surfaces With Perchloro-vynil Varnishes and Enamels," Inform. byull. po protivo-korroziynoy tekhnike, 1956, No 3, pages 10-14.

3875. Ye. M. Zhirikova, Issledovaniye organicheskikh pokrytiy, soderzhashchikh ortofosformuyu kislotu (Investigation of Organic Coatings Containing Orthophosphoric Acid), Avtoref. diss. na soiskaniye uchen. stepeni kand. tekhn. n. (Author's Abstract of Dissertation in Competition for Academic Degree of Candidate of Technical Sciences), Leningrad, 1957, 16 pages with graphs (Leningr. tekhnol. in-t im. Lensoveta).

3876. I. M. Zolotnitskiy, "Bakelite Coatings of Chemical Apparatus," Khim. mashinostroyeniye, 1940, No 1, pages 16-20.

3877. I. V. Zolotnitskiy, "From the Practice of Coating Metal with Bakelite Varnish," Khim. mashinostroyeniye, 1937, No 1, page 39.

3878. "Instruction on Lining of Apparatus with Inlaid Acid-Proof Silicate Materials on Acid-Proof Silicate Lubricants," Sbornik tekhnicheskoy informatsii. Tekhnika zashchity ot korrozii, 1959, No 3 (17), pages 27-37.

3879. "Instruction on Lining of a Pyrite Burning Furnace With Patterned Fireproof Ceramic," ibid., pages 47-55.

3880. "Instruction on Lining of Chemical Apparatus With Inlaid Acid-Proof Silicate Materials on Bituminous Binders," ibid., pages 34-47.

3881. I. Ya. Klinov and M. A. Vorob'yeva, "Testing Underlayering Materials for Chemical Resistance," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No

4-5 (13-14), pages 16-22.

3882. I. Ya. Klinov, "New Corrosion-Resistant Non-Metallic Materials (in the Chemical Industry)," Khim. nauka i prom-st', Vol 3, No 4, 1958, pages 492-499. Bibliography of 62 titles.

3883. I. Ya. Klinov and A. I. Borodovich, "Use of Asbovynl," Inform. byull. po protivokorroziynoy tekhnike, 1956, No 2, pages 15-18.

3884. I. Ya. Klinov and T. A. Fabrikant, "Improvement of Properties of Asbovynl Pulp By Way of Its Modification," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 1 (10), pages 16-18.

3885. A. I. Kogan and I. I. Shmul'yan, "Use of Chlorinated Naphthalene as a Material for Acid-Proof Apparatus and Coatings," Prom-st' organ. khimii, 1937, Vol 3, No 8, page 504.

3886. Konstruktсионnyye nemetallicheskiye materialy i korroziya metallov. Sbornik statey pod red. F. F. Khimushina (Non-Metallic Frame Materials and Corrosion of Metals) (Anthology of Articles Edited by F. F. Khimushin), Mashgiz (State Scientific and Technical Publishing House of Literature on Machine Building), Moscow, 1954, 176 pages with illustr. Bibliography at end of articles).

3887. V. Ya. Kurbatov, "Basic Conditions for Reliability of Non-Metallic Protection of Metals," in book: Trudy 1-y konferentsii po korrozii metallov pri AN SSSR (Proceedings of 1st Conference on Corrosion of Metals Held at USSR Academy of Sciences), AN SSSR (Publishing House of USSR Academy of Sciences), Moscow-Leningrad, 1935, pages 536-545.

3888. M. N. Livshits, Elektricheskiye metody okraski, emalirovaniya i glazurovaniya izdeliy (Electrical Methods of Dyeing, Enamelling and Glazing of Articles), Promstroyizdat, Moscow, 1956, 112 pages with illustr. Bibliography on pages 108-110.

3889. I. Lyushenko and A. Smirnov, "On Some Errors in Application of Perchlorovynl Coatings," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 2 (11), pages 33-34.

3890. Nemetallicheskiye antikorroziynnye materialy i pokrytiya (Non-Metallic Anti-Corrosive Materials and Coatings), VNIINEft', 1957, 61 pages with illustr. Bibliography of 11 titles.

3891. Nemetallicheskiye korrozionno stoykiye materialy i pokrytiya. Nauchn.-tekhn. soveshchaniye po bor'be s korroziyey v khim. prom. 16-21 noyabrya 1953 g. (Non-Metallic Corrosion-Resistant Materials and Coatings. Scientific-Technical Conference on Combatting Corrosion in the Chemical Industry. 16-21 November 1953), Goskhimizdat (State Publishing House for Chemical Literature), Leningrad, 1955. 145 pages with illustr. Bibliography at end of reports.

3892 [Is missing in original]

3893. Nemetallicheskiye khimicheski stoykiye pokrytiya apparatury i stroitel'nykh konstruktsey (Non-Metallic Chemically Resistant Coatings of Apparatus and Construction Frames and Corpuses). Anthology of articles edited by V. Ye. Volodin, Gosstroyizdat (State Publishing House of Literature on Building), Moscow, 1951, 214 pages with illustr.

3894. V. N. Nemchinova, "Organic Protective Coatings on Phosphatized Wares," ZH. obshch. khimii, 1934, No 21, page 69.

3895. T. N. Nikolayeva and N. S. Kudryavtseva, "Adhesion of Phtoroplast-3 Coatings to Metals," Khim. prom-st', 1959, No 8, pages 22-26. Bibliography of 18 titles.

3896. Novoye v tekhnologii pokrytiya kristallitom (New Advances in Technology of Crystallite Coating), Ukrpromkonstruktor, Kiev, 1957, 15 pages.

3897. O vnedrenii nekotorykh organicheskikh materialov v antikorroziynnoy tekhnike (On Incorporation of Several Organic Materials into Anti-Corrosion Engineering), Moscow, 1954, 22 sheets with illustrations.

3898. Organicheskiye zashchitnyye pokrytiya (Organic protective Coatings), translation from the English, edited by Ye. S. Gurevich, Mashgiz (State Publishing House on Machine Building), Moscow-Leningrad, 1959,

352 pages with illustr. Bibliography on pages 337-347.

3899. "List of Projects Completed in the Leningrad Division of Electrochemical Research in the Non-Metallic Coatings Subsection, in 1936," Korroziya i bor'ba s ney, 1937, Vol 3, No 2, pages 156-159.

3900. G. S. Petrov and A. V. Vasil'yeva, "Resistant Coatings for Anti-Corrosion Materials," Prom-st' organ. khim., 1940, No 1, pages 49-48 [?].

3901. K. A. Polyakov, Nemetallicheskiye khimicheski stoykiye materialy (Non-Metallic Chemically Resistant Materials), Goskhimizdat (State Publishing House for Chemical Literature), Moscow-Leningrad, 1952, 424 pages with illustr. Bibliography at end of chapters.

3902. A. F. Prokunina, Gummirovaniye apparatury na neftepererabatyvayushchikh zavodakh (Rubberizing of Apparatus in Oil Refineries), Gostoptekhzdat (State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature), Moscow-Leningrad, 1953, 28 pages with illustr. Bibliography on page 27.

3903. Ye. A. Protosavitskaya, "Anti-Corrosive Cements on a Base of Epoxide Tars," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 1 (10), pages 14-15.

3904. G. F. Peyn, [Payne], Tekhnologiya organicheskikh pokrytiy (Technology of Organic Coatings), Vol 1-2, transl. from the English under editorial direction of Ye. F. Belen'kiy, Goskhimizdat (State Publishing House for Chemical Literature), Leningrad, 1959, Vol 1: Oils, Tars, Varnishes and Polymeres, 1959, 758 pages with illustr.

3905. G. V. Sagalayev, Antegmit i yego primeneniye (Antegmite and Its Use), Goskhimizdat (See 3904), 1959, 88 pages with illustr. Bibliography of 12 titles.

3906. Sbornik instruktsii po primeneniyu nemetallicheskikh khimicheskikh stoykikh materialov dlya antikorrozionnoy zashchity apparatury (Collection of Directions on Use of Non-Metallic Chemically Resistant Materials for Anti-Corrosion Protection of Apparatus), Moscow, 1941, 108 pages.

3907. A. Skobelev, "Crystallite, a Protective-

Decorative Coating for Metals," Promysl. kooperatsiya, 1955, No 9, pages 32-34.

3908. I. S. Soloveychik, Zashchitnyye pokrytiya metalloy (Protective Coatings of Metals), KOIZ (United Cooperative Publishing House), Leningrad-Moscow, 1933, 120 pages with illustr. Bibliography on pages 113-118.

3909. V. A. Titov, V. I. Gerasimov, "Determination of Porosity of a Non-Metallic Coating by Spark Inductor," in the publication: Peredovoy nauchn.-tekhn. i proizv. opyt (Progressive Scientific-Technical and Production Experience), AN SSSR, filial VINITI, No M-59-114/10, 1959, pages 15-16.

3910. P. G. Udyrna, "Production of Coatings from Fluid State Plastics," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 2 (11), pages 15-17.

3911. G. V. Filaretov, Primeneniye kristallita dlya otdelki metallicheskih predmetov narodnogo potrebleniya (Use of Crystallite to Finish Metal Consumer Goods), Moscow, 1956, 11 pages.

3912. I. Finarevskiy, Nekotoryye sovremennyye vidy zashchitno-dekorativnykh pokrytiy i otdelok detaley iz chernykh i tsvetnykh metallov (Some Modern Types of Protective-Decorative Coatings and Finishes for Parts Made of Ferrous and Non-Ferrous Metals), Moscow, KOIZ (United Cooperative Publishing House), 1956, 20 pages.

3913. D. D. Chegodayev, M. I. Solov'yev and A. V. Fadeyeva, Zashchita detaley ot korrozii i mekhanicheskikh povrezhdeniy etil-tsellyuloznoy zashchitnoy obolochkoy (Antikorroziynaya massa E30) (Protection of Parts from Corrosion and Mechanical Damage by an Ethyl-Cellulose Film (Anti-Corrosive E-30)), Moscow, 1956, 13 pages.

3914. G. V. Chuchkin, "Experience in Use of Silicate Linings," Korroziya i bor'ba s ney, 1939, Vol 5, No 3-4, pages 85-95.

3915. A. P. Eychis, Imitatsionnoye zashchitno-dekorativnoye pokrytiye -- kristallit (Imitation Protective-Decorative Coating -- Crystallite), Ukrnimesttopprom, Kiev, 1957.

3916. A. P. Eychis, Kristallit -- novoye zashchitno-dekorativnoye pokrytiye (Crystallite, A New Protective-Decorative Coating), Gostekhzidat, Kiev, 1951, 56 pages w. illustr.

PART II, SECTION 9 e

ASPHALT COATINGS

4315. G. Abragam, Asfal'ty i drugiye bitumy (Asphalts and Other Tars), ONTI (United Scientific and Technical Publishing House), Moscow, 1934.

4316. Ye. A. Andreyeva, V. I. Zhukov, V. I. Bulayev and D. P. Valuyskaya, Bitumnyye pokrytiya v usloviyakh katodnoy zashchity (Asphalt Coatings in the Context of Cathode Protection), ONTI (See 4315), Moscow, 1957, 15 pages.

4317. Ye. A. Andreyeva, V. I. Zhukov, A. D. Paukov and D. P. Valuyskaya, Vliyaniye katodnoy zashchity na bitumnyye pokrytiya (Influence of Cathode Protection on Asphalt Coatings), ITEIN, Topic 23, No I-56-48, Moscow, 1956, 23 pages with 11 figures and 7 tables.

4318. Ye. A. Andreyeva, V. I. Zhukov, A. D. Paukov and D. P. Valuyskaya, "Influence of Applied Superimposed Direct Current on Asphalt Coatings of Steel Pipe-Lines," Tr. Vsesoyuzn. n.-i. in-ta po str-vu truboprovodov, 1956, Issue 8, pages 52-80.

4319. I. N. Bemonova, "Asphalt Materials," (for Chemical Apparatus), in the book: Khimicheskiye stoykiye materialy (Chemically Resistant Materials), Moscow, 1939, pages 23-43.

4320. V. G. Ben'kovskiy, T. M. Bogoslovskaya and Ye. A. Drizo, "On Certain Causes of Destruction of an Anti-Corrosive Asphalt Coating (On the Question of Protection of an Oil Pipe-Line from Corrosion)," Tr. In-ta nefti AN Kazakh. SSR, Vol 1, 1956, pages 65-75. Bibliography of 7 titles.

4321. T. M. Bogoslovskaya, Ye. A. Drizo and V. G. Ben'kovskiy, "Influence of Oxygen on the Physico-Chemical Properties of Asphalt and Tar Putties," Tr. In-ta nefti AN Kazakh. SSR, Vol 2, 1958, pages 93-99. Bibliography of 7 titles.

4322. T. M. Bogoslovskaya, Ye. A. Drizo and V. G. Ben'kovskiy, "Selection of a Mineral Filler of Local Raw Material for Asphalt Anti-Corrosion Coating," Tr. In-ta nefti AN Kazakh. SSR, Vol 2, 1958, pages 84-92. Bibliography of 15 titles.

4323. M. V. Borodulin, "Bituminous Substances as Protectors of Metals from Corrosion," in the book: Trudy 1-y konferentsii po korrozii metallov (Proceedings of 1st Conference on Corrosion of Metals), AN SSSR, Moscow-Leningrad, 1935, pages 36-37. Bibliography of 36 titles.

4324. V. Volodin, I. Bemonova and A. Klimkova, "Manufacture and Use of Chemically Resistant Asphalt-Tar Composites," Prom-st' organ. khimii, 1937, Vol 3, No 4, page 229.

4325. V. Ye. Volodin, "Chemically Resistant Asphalt-Tar Putties," Korroziya i bor'ba s ney, 1936, Vol 2, No 4, pages 387-403.

4326. V. Ye. Volodin, "On the Question of the Use of Asphalt Insulations (for Etching Baths)," Korroziya i bor'ba s ney, 1938, Vol 4, No 2, pages 147-150.

4327. Ye. I. Gurovich and A. S. Sosnina, "Sea-Water Corrosion of Steel Covered with Films of Oil Tars," Izv. AN SSSR, OTN, 1957, No 4, pages 172-173. Bibliography of 7 titles.

4328. V. I. Zhukov and F. G. Khramikhin, Bitumnaya izolyatsiya podzemnykh truboprovodov (Asphalt Insulation of Underground Pipe-Lines), Gos. izd. po str-vu i arkhitecture (State Publishing House for Construction and Architecture), Moscow, 1954, 120 pages with illustr. Bibliography on pages 117-118.

4329. V. I. Zhukov and A. A. Kozlovskaya, "Asphalt-Rubber Insulation of Pipe-Lines," Trudy Vsesoyuznogo n.-i. in-ta po str-vu truboprovodov, 1956, Issue 8, pages 18-33.

4330. V. I. Zhukov, A. A. Kozlovskaya, I. A. Shokhin and Ya. M. Kaplunov, Brizol -- novyy bitumno-rezinovyy gidroizolyatsionnyy material dlya zashchity magistral'nykh truboprovodov ot korrozii (Brizol, a New Asphalt-Rubber Waterproofing Material for Protection of

Main Pipe-Lines from Corrosion), ONTI (United Scientific and Technical Publishing Houses), Moscow, 1959, 35 pages with illustr.

4331. V. I. Zhukov and A. A. Kozlovskaya, "Influence of Fillers on Properties of Asphalt Anti-Corrosive Coatings (for Oil Pipe-Lines)," Str-vo predpriyatiy neft. prom-sti, 1957, No 8, pages 11-14.

4332. V. I. Zhukov and A. A. Kozlovskaya, Novyye materialy dlya antikorrozionnoy izolyatsii truboprovodov (New Materials for Anti-Corrosive Insulation of Pipe-Lines), ONTI (United Scientific and Technical Publishing Houses), Moscow, 1955, 17 pages with illustr.

4333. V. I. Zhukov and A. A. Kozlovskaya, "Improvement of Asphalt Insulation Coatings (Protection of Steel Pipe-Lines from Corrosion)," Tr. Vsesoyuzn. n.-i. in-ta po str-vu truboprovodov, Issue 8, 1956, pages 5-17.

4334. V. I. Zhukov and A. A. Kozlovskaya, "Electrometrical Method of Determination of Protective Capacity of Asphalt Insulating Coatings," Tr. Vsesoyuzn. n.-i. in-ta po str-vu truboprovodov, 1956, Issue 8, pages 34-51.

4335. A. V. Znamenskiy, "Protection of Iron from Corrosion (Use of Painting with Solution of Asphalt and Benzine), Moskvavolgostroy, 1935, No 2 (8), page 32.

4336. A. F. Klimkova, "On Refractory Asphalt Composites," Korroziya i bor'ba s ney, 1940, Vol 6, No 3, pages 44-50. Bibliography of 11 titles.

4337. A. S. Korzhuyev, Dispersnyye bitumy, ikh primeneniye dlya gidroizolyatsii i antikorrozionnykh pokritiy (Dispersive Asphalts and Their Use for Water-Proofing and Anti-Corrosive Coatings), Gosgeolizdat (State Publishing House for Geological Literature), Moscow, 1951, 212 pages. Bibliography on pages 204-210.

4338. G. D. Kreytser, Asfal't i yego primeneniye v tekhnike (Asphalt and Its Use in Equipment and Technology), Khimteoretizdat (Publishing House for Theoretical Chemical Literature), Moscow, 1935.

4339. V. A. Kuznetsov, Zashchita bitumnyimi pokrytiyami korpusov metallicheskikh sudov ot korrozii (Protect-

ion of Hulls of Metal Ships from Corrosion Using Asphalt Coatings), Rechizdat (Publishing House for Literature on River Transport), Moscow, 1950, 44 pages with illustr.

4340. Ya. Z. Lobanov, "On the Quality of Protective Coatings Using Silicate-Asphalt Materials for Apparatus," Korroziya i bor'ba s ney, Vol 7, No 1, pages 47-49.

4341. Kh. G. Mirbagirova, Bitumnyye pokrytiya dlya zashchity morskikh neftepromyslovkh sooruzheniy (Asphalt Coatings for Protection of Maritime Oil Tanker and Other Installations of Oil Industry), Author's Abstract of Dissertation in Competition for Academic Degree of Candidate of Chemical Sciences, Baku, Azerb. gos. un-t, 1959, 20 pages.

4342. V. F. Negreyev, A. G. Khanlarova, Kh. G. Mirbagirova and T. Kh. Vlasova, "Investigation of Protective Coatings on an Asphalt Base," Tr. n.-i. i proyekt. in-ta gidromorneft', Issue 1, 1954, pages 82-102, with tables.

4343. I. S. Perel'man, "New Materials for Asphalt Insulation of Oil Pipe-Lines," Korroziya i bor'ba s ney, 1941, Vol 7, No 1, pages 43-46.

4344. M. N. Plungyanskaya, "Protective Coatings on a Base of Asphalt-Ethynol Varnish," Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 3 (8), pages 32-33.

4345. V. A. Pritula, "Testing of Asphalt Protective Linings," Korroziya i bor'ba s ney, 1939, Vol 5, No 3-4, pages 107-112.

4346. Ye. A. Protosavitskaya and N. I. Gonchar', "Discovery of the Optimal Compositions of Cold Asphalt Putties," Sbornik tekhnicheskoy informatsii. Tekhnika zashchity ot korrozii, 1959, No 3 (17), pages 70-73.

4347. N. I. Sobolev, "Disperser for Production of Asphalt Emulsions," Mekhaniz. str-va, 1955, No 12, pages 21-22.

4348. A. V. Solov'yev, "Investigation of Protective Coatings Obtained on Metals Via Asphalt Emulsions With and Without Passivizers," ZH. prikl. khimii, 1940, Issue 3, pages 428-435. Bibliography of 46 titles.

4349. N. N. Strel'tsov, "Use the Experience of Moscow in Protection of Underground Gas Pipe-Lines By Asphalt Coatings," Gor. khozyaystvo Moskvy, 1959, No 10, pages 25-27.

4350. I. N. Frantsevich, N. A. Pilipenko and M. Ye. Lyashchenko, "On the Influence of Cathode Polarization of Steel Gas Pipe-Lines in Conditions of Electric Shielding on the State of an Insulating Asphalt Coating," in the Anthology: Voprosy poroshkovoy metallurgii i prochnosti materialov, (Questions of Powder Metallurgy and Strength of Materials), Issue 3, AN Ukr. SSSR, Kiev, 1956, pages 122-136.

4351. A. G. Khanlarova and Kh. G. Mirbagirova, "Investigation of Asphalt Coatings Applied Cold," Tr. N.-i. i proyekt in-ta "Gipromorneft", Issue 1, 1954, pages 103-128.

4352. A. G. Khanlarova, Kh. G. Mirbagirova, R. A. Yashina, M. I. Mamedov and S. G. Znaychenko, "Use of Asphalt Coatings to Combat Maritime Corrosion," in the book: Trudy Vsesoyuznogo soveshchaniya po bor'be s morskoy korroziyey metallov (Proceedings of All-Union Conference on Combatting Maritime Corrosion of Metals), Baku, 1958, pages 235-248.

4353. V. M. Shalfeyev and Ye. V. Kandidova, "Asphalt-Pitch Composites as Anti-Corrosive Coatings for Pipe-Lines and Some Methods of Testing Them," Plastmassy, 1934, No 6, pages 31-37. Bibliography of 6 titles.

4354. A. V. Shreyder, "Electrochemical Method of Determining Anti-Corrosive Properties of Asphalt Insulation Coating of Underground Pipe-Lines (According to Materials of Report by F. Bal'di), Zavodsk. laboratoriya, 1957, Vol 23, No 3, page 339.

4355. Ye. A. Yagodinskiy, "Heat Method of Applying Asphalt Coatings to Surface of the Bilges of Metallic Barges (from Experience of the Red Army Ship Repair Yard on the Volga)," Rechnoy transport, 1955, No 8, pages 18-20.

4356. L. F. Yankelev, "Protective Coatings of Asphalt Roll Materials (for Oil Pipe-Lines)," Str-vo predpr. neft. prom-sti, 1957, No 8, pages 15-16.

PART II, SECTION 11

PLASTICS IN ANTI-CORROSION TECHNOLOGY

4485. S. M. Ageyev, Plastmassy i zashchitnyye pokrytiya (Plastics and Protective Coatings), MAI, Moscow, 1935, 100 pages with illustr. Bibliography : pages 98-99.

4486. "Viniplast as an Anti-Corrosion Material," Elektr. stantsii, 1951, No 8, page 61.

4487. Antikorrozionnaya massa EZO (etiltsellyuloznaya zashchitnaya obolochka) (Anti-Corrosion Plastic EZO (Ethylcellulose Protective Covering), edited by D. D. Chegodayev, State Publishing House of Chemical Literature, Leningrad, 1955, 20 pages with illustr.

4488. L. Antonov and A. Urinson, "Combating Corrosion of Metals by Rubberizing," Predpriyatiye. 1935, No 13, pages 38-39.

4489. G. A. Balalayev, "Protection of Chemical Apparatus from Corrosion by Rubberizing," Korroziya i bor'ba s ney, 1940, Vol 6, No 4, pages 28-34.

4490. S. Bartenev, A. Zhuravlev and I. Lozovskaya, "Iron Oxide as a Substance Increasing the Cohesion of Ebonite with Metal," ZH. rez. prom-sti, 1935, page 746.

4491. L. Borodulin, "Economic Advisability of Use of Chlorinated Rubber as a Protective Material Against Corrosion," ZH. rezin. prom-sti, 1934, Vol 10, No 3, pages 203-207.

4492. V. I. Bulayev, "Polyethylene and Polychlorovinyl Plastics for Insulation of Pipe-Lines," Str-vo truboprovodov, 1959, No 8, pages 12-14, 2 Figures, Bibliography of 9 titles.

4493. V. L. Vinarskiy, "Experiment in Rubberizing from Solutions," Inform. byull. Tekhnika zashchity ot korrozii, 1959, No 1 (15), pages 8-10.

4494. V. Ye. Volodin, G. V. Mil'vitskiy and I. V. Abramov "Faktis as a Material for Anti-Corrosion Coating," Korroziya i bor'ba s ney, 1938, Vol 4, No 5-6, pages 355-365.

4495. Vsesoyuznoye nauchno-tekhnicheskoye soveshchaniye po korrozii i zashchite metallov. Sektsiya nemetallicheskih khimicheskikh stoykikh materialov. Tezisy dokladov i soobshcheniy. (All-Union Scientific-Technical Conference on Corrosion and Protection of Metals. Section Dealing With Non-Metallic Chemically Resistant Materials. Abstracts of Reports and Communications). Collection 6, Trade Unions' Publishing House, Moscow, 1958, 69 pages.

4496. M. Ye. Grishin, "A New Method for Using Polyethylene as a Chemically Resistant Protective Coating," Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 1 (6), page 18.

4497. B. N. Gulyayev and A. V. Zhdanova, "Using Polyisobutylene as Protector of Equipment from Corrosion," Gidroliznaya i lesokhim. prom-st', 1958, No 1, pages 8-9.

4498. Ye. N. Gurkov, "Plastics as Substitutes for Non-Ferrous Metals in Textile Industry," Korroziya i bor'ba s ney, 1939, Vol [omitted], No 5-6, pages 97-109.

4499. A. V. Dmitriyev, T. N. Nikolayeva, G. K. Ryseva and V. Kuryatnikova, Elektricheskiye metody kontrolya zashchitnykh pokritiy iz ftoroplasta (Electrical Methods of Checking for Quality Such Protective Coatings as are Made of Phtoroplast), Mos 1959, 12 pages with graphs (USSR Academy of Sciences, Branch of VINITI. Topic 19, No M-59-154/5).

4500. V. N. Dyatlova, "Selection of Materials for Working Conditions in Acetylcellulose Production," Korroziya i bor'ba s ney, 1938, Vol 4, No 5-6, pages 402-408.

4501. V. Yevstratov and N. Trankovskaya, "On Fastening of Rubber to Metals," ZH. rez. prom-sti, 1936, No 5, page 578.

4502. I. A. Yegorov, Faolit i yego primeneniye v khimicheskoy promyshlennosti (Phaolite and Its Use in the Chemical Industry), State Publishing House of Chemical Literature, Moscow, 1956, 76 pages with illustr. Bibliography of 14 titles.

4503. G. V. Zhemchuzhin, "Plastics for Covering Chamical Apparatus," Anthology of Technical Information: Tekhnika zashchity ot korrozii (Tcehniques of Protection from Corrosion), 1959, No 3(17), pages 74-76.

4504. P. Zmiy, "Transport of Hydrochloric Acid in Rubberized Rail Tank-Cars," ZH. prikl. khimii, 1935 [no No given], page 245.

4505. V. S. Kiselev and T. A. Yermolayeva, "Obtaining Fast-Drying Coatings on the Base of Polyester Tars out of Semi-Drying Oils and Butylorthotitanate," ZH. prikl. khimii, Vol 31, Issue 1, 1958, pages 111-116. Bibliography of 8 titles.

4506. Kislородnaya rezka, svarka, napyleniye plastmass (Sbornik statey) (Oxygen Cutting, Welding and Dusting of Plastics (Collection of Articles), edited by Candidate of Technical Sciences A. N. Shashkov, State Scientific and Technical Publishing House of Literature on Machine Construction, Moscow, 1957, 163 pages with illustr.

4507. I. Ya. Klinov, "Asbovinyl as a Material for Anti-Corrosion Protection of Equipment (Coke Industry). Koks i khimiya, 1956, No 2, pages 44-47.

4508. F. Ye. Kravets and M. G. Yartsev, "Corrosive Properties of Brown Coal Tars and Sulphur Acids," Goryuchiye slantsy, 1935, No 6, pages 73-79.

4509. V. V. Krasnoyarskiy and V. I. Bulayev, "Some Peculiarities of the Application of Plastic Insulation from the Engineering Standpoint," Str-vo truboprovodov, 1960, No 1, pages 9-11.

4510. F. F. Krivonos, "Preparation of a Bakelite Anti-Corrosion Coating," ZH. prikl. khimii, 1938, Vol 11, Issue 9, page 1361-1365.

4511. S. K. Kurbanov, "Rubberizing of Piles to Protect Them from Corrosion in Sea Water," in the book: Trudy Vsesoyuznogo soveshchaniya po bor'be s morskoy korrozией metallov (Proceedings of the All-Union Conference on Combatting Seawater Corrosion of Metals), Baku, 1958, pages 478-485.

4512. A. L. Labutin, "Use of Synthetic Rubbers in Anti-Corrosion Engineering," Khim. nauka i prom-st', Vol 2, No 3, 1957, pages 359-365. Bibliography of 7 titles.

4513. A. S. Lekhterov, Travleniye v vinilplastovykh vannakh (Etching in Vinyl Plastic Baths), Moscow, 1956, 8 pages with illustr.

4514. V. G. Lyubarskiy, "Use of Rubber in Preparation of Varnishes," Vestn. inostr. tekhniki, 1936, No 11, page 666.

4515. I. I. Matveyev, N. N. Nastay, Ye. K. Perminova and Ye. M. Moskvina, Epoksidnyye smoly i ikh primeneniye (Epoxy Resins and Their Use), Leningrad, 1957, 28 pages with illustr.

4516. O. Merts, "Coatings with a Rubber Base and their Importance in the Matter of Protection from Corrosion," Russko-germ. vestn. nauki i tekhn., 1934, No 5, pages 43-46.

4517. G. V. Mil'vitskiy, "Protection of Galvanized Suspension Devices by Means of Chlorovinyl Coatings of the 'Koralak' Type," Korroziya i bor'ba s ney, 1939, Vol 5, No 5-6, pages 50-56. Bibliography of 4 titles.

4518. E. M. Mikhel'son, "Resistance to Corrosion of the New Anti-Friction Material Voizite," Korroziya i bor'ba s ney, 1939, No 3-4, pages 60-71. Bibliography of 15 titles.

4519. "Experiment at Coating Propeller Blades with Rubber Mixtures and Rubber Putty to Prevent Corrosion," Morskoy flot, 1956, No 4, pages 27-28.

4520. G. S. Petrov and A. V. Vasil'yev, "Rubber Coatings as an Anti-Corrosion Material," Prom-st' organ. khimii, Vol 7, No 1, 1940, pages 48-49.

4521. Plastmassovyye shtampy i pokrytiya (Plastic Stamps and Coatings) (translated from the English), TS NIITMASH, Moscow, 1959, 30 pages with illustr.

4522. N. I. Postnikov, "Rubberizing of Baths," Kauchuk i rezina, 1940, No 2, page 60.

4523. A. F. Prokunina, "Rubberizing of Apparatus in Oil-Processing Factories," State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature, Moscow-Leningrad, 1953, 28 pages with illustr. Bibliography on page 27.

4524. "Work on Anti-Corrosion Materials in the Institute and in Plastic Factories," Prom-st' organ. khim., 1937, Vol 3, No 7, page 422.

4525. M. N. Reykhshtadt, "Faktis as a Chemically Resistant Material," in the book: Khimicheski stoykiye materialy, Moscow, 1939, pages 51-62.

4526. V. T. Renne and V. V. Pasyukov, "Instrument for Measuring Degree of Polymerization of Articles Made of Plastics,"

Zavodsk. laboratoriya, 1939, Vol 8, No 8, page 887.

4527. V. G. Rozhdestvenskiy, "Rubberizing of Railway Tank Cars," Inform. byull. po protivokorroziionnoy tekhnike, 1956, No 3, pages 7-9.

4528. A. I. Rychkov and I. Ya. Klinov, "Experience at Use of Asbovinyl as an Anti-Corrosion Material (in the Chemical Industry)," Khim. prom-st', 1954, No 8, pages 44-45.

4529. I. A. Savchuk, "Anti-Corrosion Mixtures on a Base of High-Polymere Acetylene," Prom-st' organ. khimii, 1940, No 4-5, pages 262-263.

4530. D. Sandomirskiy, "Rubberizing Chemical Apparatus by the Method of Electrical Precipitation," in the book: Trudy 1-oy konferentsii po korrozii metallov pri AN SSSR (Proceedings of 1st Conference on Corrosion of Metals held at the USSR Academy of Sciences), USSR Academy of Sciences, Moscow-Leningrad, 1935, pages 739-742. Bibliography of 7 titles.

4531. L. A. Sysina, Izucheniye zashchitnykh svoystv pokrytiy iz politriflorokhloretilena (Study of the Protective Properties of Polytrifluorochlorethylene). Author's Abstract of Dissertation in Competition for Degree of Candidate of Chemical Sciences (Leningrad Institute of Applied Chemistry), Leningrad, 1959, 12 pages.

4532. L. A. Sysina and V. A. Kargin, "Study of the Mechanism of the Protective Action and Process of Crystallization of Polytrifluorochlorethylene Films," Khim. prom-st', 1959, No 5, pages 8-13. Bibliography of 21 titles.

4533. T. L. Fabrikant and V. L. Vol'tman, Asbovinil i yego primeneniye v khimicheskoy promyshlennosti (Asbovinyl and Its Use in the Chemical Industry), State Publishing House of Chemical Literature, Moscow, 1958, 79 pages with Bibliography on page 77.

4534. M. Farberov, "Fastening of Rubber to Metal," ZH. rezin. prom-sti, 1936, No 8-9, page 900.

4535. N. K. Chernobrivtsev, "Use of Plastics in Ship Building," Rechnoy transport, 1958, No 2, pages 38-40.

4536. G. V. Chuchkin, "Rubber as a Chemically Resistant Material," in the book: Khimicheski stoykiye materialy (Chemically Resistant Materials), Moscow, 1939, pages 63-69.

4537. V. A. Shishkin, Issledovaniye protsessa naneseniya smolyanykh pokrytiy metodom gorvachego napyleniya i svoystv poluchavemykh pokrytiy (Examination of the Process of Application of Tar Coatings by the Method of Hot Powder Deposition and a Consideration of the Properties of the Coatings So Obtained), Author's Abstract of Dissertation in Competition for the Degree of Candidate of Chemical Sciences, Moscow, 1954, 12 pages (Moscow Aviation Engineering Institute).

PART III, SECTION 3

PROTECTION OF UNDERGROUND INSTALLATIONS FROM CORROSION AND STRAY CURRENTS

A) General Questions

4723. N. Abramov, "Protection of Gas Systems from Corrosion," (in the city of Ufa), Zhil-kommun. khoz-vo, 1959, No 10, pages 19-21.

4724. P. A. Azbukin, A. A. Bedritskiy and A. F. Pritula, Bor'ba s korroziyey podzemnykh sooruzheniy (Combating Corrosion of Underground Installations), ONTI (Combined Scientific and Technical Publishing Houses), Moscow, 1935.

4725. K. F. Azimova, "Methods of Protecting Underground Cables from Electrical Corrosion," Tr. Leningr. elektrotekhn. in-ta inzh. signalizatsii i svyazi NKPS, Issue 2, 1940, pages 121-126.

4726. L. I. Akinfiyev, "Method of Establishing Corrosion Zones in Urban Territory," Anthology of articles : Ekspluatatsiya kabeley i kabel'nykh setey (Operation of Cables and Cable Systems), Gosenergoizdat (State Publishing House for Literature on Electric Power), Moscow, 1949.

4727. A. Aleksandrov, "Underground Corrosion," Nauka i zhizn', 1952, No 12, pages 29-30.

4728. Ye. A. Andreyeva, V. V. Krasnoyarskiy and V. I. Bulyayev, "Ways of Increasing Anti-Corrosive Resistance of Coatings of Underground Pipe-Lines in Conditions of Cathode Protection," Str-vo predpr. neft. prom-sti, 1958, No 1, pages 7-10.

4729. Ye. A. Andreyeva, V. I. Bulyayev and D. P. Valuyskaya, "Resistance of Insulating Coatings of Steel Pipe-Lines in Context of Complex Shielding," in the book: Zashchita truboprovodov ot korrozii. Nauchn.-tekhn.

sbornik po gazovoy tekhnike (Protection of Pipe-Lines from Corrosion. Scientific-Technical Anthology on Gas Equipment), Issue 1, GOSINTI, Moscow, 1959, pages 28-32. Bibliography of 7 titles.

4730. G. S. Aronson, "Calculation of Parameters of Drainage Protection (Combatting Corrosion of Underground Metallic Installations), Elektrichestvo, 1957, No 9, pages 50-52.

4731. V. S. Artamonov, "Protection of Alternating Current Communications Cables of Electrified Rail Roads from Soil Corrosion," Vestn. Vsesoyuzn. n.-i. in-ta zh.-d. transp., 1956, No 2, pages 37-40.

4732. V. S. Artamonov, "Protective Coverings of Underground Rail Transport Installations," in the book: Teoriya i praktika protivokorroziionnoy zashchity podzemnykh sooruzheniy (Trudy 6-go Vsesoyuzn. soveshchaniya po korrozii i zashchite metallov) (Theory and Practice of Anti-Corrosion Protection of Underground Installations (Proceedings of 6th All-Union Conference on Corrosion and Protection of Metals)), AN SSSR, Moscow, 1958, pages 125-139. Bibliography of 4 titles.

4733. I. Baron, "Protection of Water Pipes from Stray Currents," Zhil.-kommun. kh-vo, 1956, No 6, page 21.

4734. Yu. M. Belodvorskiy and L. Ya. Tsikerman, "On Classification of Anti-Corrosive Insulation of Pipe-Lines," Zhil.-kommun. kh-vo, 1957, No 12, pages 8-9.

4735. K. G. Belofastov, "Protection of a Gas Main from Corrosion," Ogneupory, 1939, No 5, pages 341-344.

4736. A. A. Belyayev, "Experience of Combatting Corrosion in the Soda Industry," Korroziya i bor'ba s ney, 1939, Vol 5, No 5-6, pages 88-96.

4737. S. G. Vedenkin and V. S. Artamonov, "Corrosion and Protection of Cast-Iron Tubings and Installations of the Subway," in the book: Teoriya... (See above 4732), pages 195-208.

4738. Vremennaya instruktsiya po zashchite gorodskikh gazoprovodov ot elektrokhimicheskoy korrozii (Provisional Directions on Protection of Urban Gas Mains from

Electrochemical Corrosion), Izd. Min. komm. khoz. RSFSR (Publishing House of RSFSR Public Utilities Ministry), Moscow, 1955, 102 pages with illustr. Bibliography of 20 titles.

4739. Vremennaya instruktsiya po proyektirovaniyu zashchity mezhduгородnykh kabeley ot korrozii (Provisional Directions on Planning of Protection of Inter-Urban Cables from Corrosion), Svyaz'izdat (Publishing House for Communications Literature), Moscow, 1954, 56 pages with illustr.

4740. Vremennyye tekhnicheskiye usloviya na zashchitu podzemnykh metallicheskiykh sooruzheniy v Moskve (Provisional Technical and Engineering Conditions for Protection from Corrosion of Underground Metallic Installations in Moscow), Moscow, 1949.

4741. Vsesoyuznoye nauchno-tekhnicheskoye soveshchaniye po korrozii i zashchite metallov. Sektsiya podzemnoy korrozii. Tezisy dokladov i soobshcheniy (All-Union Scientific-Technical Conference on Corrosion and Protection of Metals. Section on Underground Corrosion. Abstracts of Reports and Communications), Anthology 2, Profizdat (Trade Unions Publishing House), Moscow, 1958, 50 pages.

4742. V. I. Glazkov and V. G. Kotik, "Protection of Main Pipe-Lines from Corrosion Caused by Currents from Direct Current Electric Communication Lines," Tr. Vsesoyuzn. n.-i. in-ta po str-vu truboprovodov, Issue 8, 1956, pages 124-139. Bibliography of 5 titles.

4743. A. I. Gordyukhin, "Experience of Protection of Underground Gas Pipe-Lines in Moscow from Corrosion Caused by Stray Currents," in the Book: Teoriya... (See 4732), pages 187-194.

4744. M. B. Gorelik, E. I. Ioffe and M. A. Suris, Zashchita gazovykh setey ot bluzhdayushchikh tokov (Protection of Gas Systems from Stray Currents), Izd. M-va kommun. khoz-va RSFSR (Publishing House of the RSFSR Public Utilities Ministry), 1959, 144 pages with illustr.

4745. D. A. Gofen, "Chemical Protection of Underground Reservoirs (Neutralizers, Mixers, and the Like), Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 3 (8), pages 12-14; 1958, No 1 (10), pages 7-9.

4746. V. A. Grimaylovskiy, "Peculiarities of Protection of Gas Systems from Electrocorrosion in Big Cities," Anthology: Transport i ispol'zovaniye prirodnogo gaza (Transport and Use of Natural Gas), Kiev, 1953, pages 125-136.

4747. B. M. Gurevich, "Corrosion in the Moscow Subway-Elevated and Ways of Decreasing Stray Currents," Sov. metropoliten, 1939, No 1, pages 18-21.

4748. B. M. Gurevich, "On Ways of Laying Down Cables and Protecting Them from Burn-Throughs and Corrosion," Sov. metropoliten, 1939, No 6, pages 27-33.

4749. V. S. Daniel'-Bek and G. F. Ogorodnikov, "Protective Coatings (For Telephone and Telegraph Cables)." Predokhraneniye ot korrozii. Nauchn.-tekhn. sbornik po elektrosvyazi (Leningr. elektrotekhn. in-t), 1937, Issue 4 (20), pages 80-82.

4750. M. D. Dzhaferov, "Coverings for Protection of Pipe-Lines from Soil Corrosion," in the book: Teoriya... (See above 4732), pages 119-124. Bibliography of 7 titles.

4751. P. G. Doroshenko, Rukovodstvo po elektricheskim izmereniyam i zashchite truboprovodov ot korrozii, vyzvayemoy bluzhdayushchimi tokami (Handbook on Electrical Measurements and Protection of Pipe-Lines from Corrosion Caused by Stray Currents), Gostoptekhzdat (State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature), Moscow, 1956, 43 pages with illustr.

4752. P. G. Doroshenko, Sposoby elektricheskikh izmereniy i zashchity podzemnykh truboprovodov ot korrozii vyzvayemoy bluzhdayushchimi tokami (Means of Electrical Measuring and Protection of Underground Pipe-Lines from Corrosion Caused by Stray Currents), VINITI, Moscow, 1957.

4753. P. G. Doroshenko, "Installations for Protection of Pipe-Lines from Corrosion Caused by Stray Currents," Str-vo predpr. nef. prom-sti, 1956, No 3, pages 8-10.

P. G. Doroshenko, V. I. Glazkov and V. G. Kotik, "Electrical Shielding of Main Pipe-Lines from Corrosion," in the book: Trudy Vsesoyuznogo soveshchaniya po bor'be s morskoy korroziyey metallov (Proceedings of All-Union

Conference on Combatting Maritime Corrosion of Metals), Baku, 1958, pages 308-320.

4755. P. G. Doroshenko, "Electrical Shielding of Main Pipe-Lines from Corrosion Caused by Stray Currents," in the book: Teoriya... (See above 4732), pages 181-186.

4756. V. A. Dyalyusha, "Action of Stray Currents on Water Pipes," Vodosnabzh. i san. tekhn., 1937, No 1, page 41.

4757. I. M. Yershov, Zashchita podzemnykh kabeley ot elektrokorrrozii (Protection of Underground Cables from Electrical Corrosion), Transzheldorizdat (Rail Transport Literature Publishing House), Moscow, 1953, 76 pages with illustr.

4758. I. M. Yershov, Zashchita podzemnykh sooruzheniy ot korrozii vyzyvayemoy bluzhdayushchimi tokami (Protection of Underground Installations from Corrosion Caused by Stray Currents), Transzheldorizdat (Rail Transport Literature Publishing House), Moscow, 1948, 160 pages with illustr. (Trudy Vsesoyuznogo n.-i. in-ta zh.-d. transp., Issue 21). Bibliography on pages 157-159.

4759. I. M. Yershov, "On Measures for Combatting Electrical Corrosion and Corrosion Caused by the Heterogeneity of Soils," Trudy soveshchaniya po voprosam korrozii i bor'by s ney, 1940, No 2, pages 153-162 (Moscow-Leningrad, AN SSSR).

4760. V. I. Zhukov, "Ways of Improving Insulating Coatings for Pipe-Lines," in the book: Teoriya... (See above 4732), pages 110-118.

4761. Zashchita podzemnykh metallicheskiikh sooruzheniy ot korrozii (Protection of Underground Metallic Installations from Corrosion). Reference Work Edited by N. I. Ryabtsev, izd-vo Ministerstva kommun. khoz-va RSFSR (Publishing House of the RSFSR Public Utilities Ministry), Moscow, 1959, 743 pages with illustr. Bibliography at end of Chapters.

4762. Zashchita podzemnykh metallicheskiikh truboprovodov i kabeley ot korrozii (Protection of Underground Metallic Pipe-Lines and Cables from Corrosion), under general editorial direction of Prof. V. N. Mil'shteyn,

Iz-vo Ministerstva kommun. khoz-va RSFSR (Publishing House of RSFSR Public Utilities Ministry), Moscow, 1954, 88 pages with illustr. Bibliography at end of articles.

4763. Zashchita stal'nykh truboprovodov ot korrozii (Protection of Steel Pipe-Lines from Corrosion) (Anthology of Articles), Gostoptekhizdat (State Scientific and Technical Publishing House for Petroleum and Mineral Fuel Literature), Moscow, 1956, 148 pages with illustr. Bibliography at end of articles.

4764. Zashchita truboprovodov ot korrozii (Protection of Water Pipes from Corrosion), Issue 1, GOSINTI, Moscow, 1959.

4765. A. M. Zinevich, "Strength of Protective Coverings of Underground Steel Pipe-Lines (On Improvement of Quality of Asphalt Coatings)," Str-vo predpr. neft. prom-sti, 1958, No 4, pages 5-8.

4766. B. I. Ivanov, N. I. Zelenin, N. F. Sharonova and Yu. A. Kozak, "Formation of Polymeres and Corrosion of the Kokhtla-Yarve-Leningrad Gas Pipe-Line," Trudy Vsesoyuznogo. n.-i. in-ta pererabotki i ispol'zovaniya topliva, 1959, Issue 8, pages 106-112.

4767. I. I. Ivanov and V. V. Shlager, "Experience at Protection of Main Gas Pipe-Line from Corrosion by Stray Electric Wire Currents," Gazovaya prom-st', 1957, No 5, pages 25-31.

4768. N. P. Il'ina and G. I. Skramtayeva, Tsementnyye izolyatsionnyye pokrytiya dlya stal'nykh podzemnykh truboprovodov, ukladyvayemykh sposobom protalkivaniya (Cement Insulating Coatings for Steel Underground Pipe-Lines Laid Down By Push-Through Method), Moscow, 1956, 22 pages with illustr.

4769. S. S. Itenberg, "Corrosive Properties of Soils and Discovery of Corrosion Foci in Pipe-Lines Already Laid Down By Way of Measurements Taken At the Surface," Vodosnabzh. i san. tekhn., 1936, No 4.

4770. I. N. Kolotukhin, "On Questions of Protection of an Underground Oil Pipe-Line From Corrosion by Paints and Varnishes," Vestn. inzh. i tekhn., 1935, No 1, pages 42-45.

4771. V. V. Krasnoyarskiy, "On the Question of the Determination of the Contact Resistance of the Protective Insulating Coating of an Underground Pipe-Line," in the book: Teoriya... (See above 4732), pages 140-147. Bibliography of 8 titles.

4772. V. V. Krasnoyarskiy, Ye. A. Andreyeva and V. I. Bulayev, "Some Questions on Use of Plastics for Protection of Underground Pipe-Lines from Corrosion," in the book: Zashchita... (See above 4729), pages 37-40. Bibliography of 3 titles.

4773. K. N. Kupreyanov, "Use of Groundsoils Treated with Black Binding Substances for Protection of Reservoir Bottoms from Groundsoil Corrosion," Trudy Vsesoyuznogo n.-i. in-ta po str-vu truboprovodov, Issue 8, 1956, pages 81-86.

4774. P. N. Lebedev, "Experience at Protecting City Gas Pipe-Lines from Electrochemical Corrosion," Str-vo truboprovodov, 1959, No 7, pages 23-26.

4775. R. R. Liander, "Stray Currents as a Factor in Electrocorrosion and Measures to Protect Underground Cables and Metallic Pipe-Lines," in the book: Trudy 1-y konferentsii po korrozii metallov pri AN SSSR (Proceedings of 1st Conference on Corrosion of Metals Held at USSR Academy of Sciences), AN SSSR, Moscow-Leningrad, 1935, pages 570-582.

4776. D. B. Lomazov, "New Rules for Protection of Underground Metallic Installations from Corrosion," Elektrichestvo, 1959, No 11, pages 81-83. Bibliography of 1 title.

4777. Instruktsiya po opredeleniyu korroziionno opasnykh zon na trassee podzemnogo truboprovoda (Directions for Determining Corrosion Danger Zones on the Bed of an Underground Pipe-Line), Min. neft. prom-sti (Oil Industry Ministry), Moscow, Gostoptekhizdat (State Scientific and Technical Publishing House for Petroleum and Mineral Fuel Literature), 1954.

4778. Z. G. Malkin, "Protection of Underground Installations from Corrosion Due To Stray Currents," Prom. energetika, 1959, No 10, pages 1-4.

4779. A. F. Marchenko, K. K. Nikol'skiy and L. D. Razumov, Rukovodstvo po zashchite podzemnykh kabeley svyazi ot korrozii (Handbook on Protection of Underground Communications Cables from Corrosion), Svyazizdat (Publishing House for Communications Literature), Moscow, 1956, 206 pages with illustr. Bibliography on page 201.

4780. A. N. Matveyev, "Combatting Electrocorrosion," Tr. i-y nauchno-tekhnicheskoy konferentsii NIIZhT (Proceedings of 1st Scientific-Technical Conference of Rail Transport Institute), Moscow, 1940, pages 388-392.

4781. A. N. Matveyev, "Protection of Baku-Batumi Oil Pipe-Lines from Electrocorrosion," in the book: Sbornik statey po elektricheskoy tyage na zh.-d. transporte (Anthology of Articles on Electric Drive and Wiring on Rail Transport) (N.-i. in-t zh.-d. transporta (Rail Transport Scientific Research Institute), Issue 57), pages 195-212, Moscow, 1938.

4782. A. N. Matveyev, "On Measures to Combat Electrocorrosion," in the book: Trudy... (See 4759), pages 161-162.

4783. Ye. S. Makhover, "Practical Experience at Protecting Underground Gas Pipe-Lines from External Corrosion," Gazovaya prom-st', 1956, No 3, pages 20-25.

4784. Meropriyatiya po ogranicheniyu tokov utechki iz rel'sov tramvaya v tselyakh bor'by s korroziyey podzemnykh metallicheskiykh sooruzheniy bluzhdayushchimi tokami (Measures to Limit Leakage Currents from Rails of the Streetcar Lines So As To Combat Corrosion of Underground Metallic Installations by Stray Currents), izd-vo Ministerstva Kommun. khoz-va RSFSR (RSFSR Public Utilities Ministry Publishing House), Moscow, 1957, 44 pages with diagrams.

4785. Metody bor'by s podzemnym raz'edaniyem truboprovodov (Soveshch. v NKTP 25^{IX} 1934 g. po zashchite ot korrozii podzemnykh sooruzheniy) (Methods of Combatting Underground Corrosion of Pipe-Lines (Conference of 25 September 1934 at People's Commissariat for Heavy Industry on Protection of Underground Installations from Corrosion), Moscow, 1935, 16 pages.

4786. M. I. Mikhaylov, V. N. Akulenok and A. F.

Marchenko, Zashchita mezhdogorodnykh kabeley svyazi ot korrozii (Protection of Inter-Ubran Communications Cables from Corrosion), Svyaz'izdat (Publishing House for Communications Literature), Moscow, 1953, 131 pages with illustr. Bibliography on pages 127-128.

4787. Nauchno-tekhnicheskoye soveshchaniye po zashchite truboprovodov i kabeley ot korrozii. Trudy (Scientific-Technical Conference on Protection of Pipe-Lines and Cables from Corrosion) (Proceedings), Gosenergoizdat (State Publishing House for Publications on Power and Fuels), Leningrad-Moscow, 1953, 135 pages with drawings.

4788. V. F. Negreyev, M. S. Trifel', S. A. Melkmandarov and A. G. Khanlarova, "Increasing the Effectiveness of Anti-Corrosion Protection of Pipe-Lines (With Editor Note), Str-vo truboprovodov, 1958, No 7, pages 4-7.

4789. K. K. Nikol'skiy and L. D. Razumov, Sovmestnaya zashchita ot korrozii kabeley svyazi i podzemnykh metallicheskikh sooruzheniy, (Combined Protection from Corrosion of Communications Cables and Underground Metallic Installations), Svyaz'izdat (Publishing House for Communications Literature), Moscow, 1957, 38 pages with illustr.

4790. L. S. Novakovskaya, "On the Question of Combatting Soil Corrosion of Pipe-Lines," Neft', 1934, Vol 26, No 12, pages 66-67.

4791. M. L. Ozerskaya, Issledovaniye korrozii podzemnykh metallicheskikh sooruzheniy metodami elektro-razvedki (Investigation of Corrosion of Underground Metallic Installations by Methods of Electrical Exploration), Gostoptekhizdat (State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature), Moscow, Leningrad, 1950, 80 pages with illustr.

4792. M. Ozerskaya and G. Surits, "Method of Investigating Stray Currents in the Soil," Korroziya i bor'ba s ney, 1941, Vol 7, No 1, pages 18-23.

4793. N. A. Pokrovskiy, "Protection of Cables and Underground Sewers from Electrical Corrosion," Tekhnika svyazi, 1938, No 1, pages 61-63.

4794. S. S. Popov, "Problems of Anti-Corrosion Protection of Main Oil Pipe-Lines in 1956-1960," in the book: Teoriya.... (See above 4732), pages 260-269.

4795. S. A. Popov, "Protection of Main Oil Pipe-Lines from Corrosion," Neft. kh-vo, 1957, No 6, pages 47-52.

4796. "Rules for Protecting Underground Metallic Installations from Corrosion," Byull. stroit. tekhniki, 1958, No 10, pages 11-12.

4797. Pravila zashchity podzemnykh metallicheskikh sooruzheniy ot korrozii (Rules for Protecting Underground Metallic Installations from Corrosion), Gosstroyizdat (State Publishing House for Construction Literature), Moscow, 1959, 50 pages with diagrams.

4798. Pravila zashchity podzemnykh metallicheskikh sooruzheniy ot korrozii bluzhdayushchimi tokami (Rules for Protecting Underground Metallic Installations from Corrosion by Stray Currents), Kiev, 1950, 23 pages (UkSSR Ministry of Public Utilities).

4799. A. F. Pritula, "Combatting Underground Corrosion of Pipe-Lines," Neft. khoz-vo, 1935, Vol 28, No 6, pages 68-72.

4800. A. F. Pritula and V. A. Pritula, Transport nefti, neftyanykh produktov i gaza: ch. 2 -- Bor'ba s naruzhnym i vnutrennim raz'edaniyem truboprovodov (uchebnik) (Transport of Petroleum, Petroleum Products and Gas: Part 2: Combatting Exterior and Interior Corrosion of Pipe-Lines) (Textbook), ONTI NKTP (United Scientific and Technical Publishing Houses People's Commissariat of Heavy Industry), Moscow-Leningrad, 1937, 531 pages. Bibliography: pages 530-531.

4801. V. A. Pritula, "Protection of Underground Pipe-Lines from External Corrosion," (Zashchita podzemnykh truboprovodov ot vneshney korrozii), Gostoptekhzdat (State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature), Moscow-Leningrad, 1948, 192 pages with illustr. Bibliography on pages 188-190.

4802. V. A. Pritula, "A New Insulation for Under-

ground Pipe-Lines and Conditions of Its Use," Neft. khoz-vo, 1937, No 2, page 49.

4803. V. A. Pritula, "Prevention of Corrosion of Pipe-Lines by Stray Currents," Korroziya i bor'ba s ney, 1938, Vol 4, No 2, pages 159-164.

4804. V. I. Prokof'yev, Mery po korennomu ulucheniyu protivokorroziionnoy zashchity magistral'nykh truboprovodov (Measures for Radical Improvement of Anti-Corrosion Protection of Main Pipe-Lines), Moscow, 1959, 17 pages with graphs (Vsesoyuzn. soveshch. po transp. str-vu. Materialy) (All-Union Conference on Transport Construction. Materials).

4805. V. I. Proferansov and P. Lebedev, "Protection of Gas Systems from Corrosion," Zhil-kommun. kh-vo, 1959, No 5, pages 10-12.

4806. V. I. Proferansov, "Protection of City Gas Pipe-Lines from Corrosion Caused by Stray Currents," Str-vo truboprovoda, 1959, No 6, pages 27-28.

4807. S. R. Rafikov, V. G. Gutsalyuk, V. G. Ben'kovskiy and M. N. Mikhaylov, "Use of Polichlorovynil Plastic for Protection of Underground Pipe-Lines from Corrosion," in the book: Zashchita... (See above 4729), pages 33-36, 1 figure.

4808. "Decision of All-Union Conference on Theory and Practice of Anti-Corrosion Protection of Underground Installations, 8-10 May 1956," Trudy 6-go Vsesoyuznogo soveshchaniya po korrozii i zashchite metallov (Proceedings of 6th All-Union Conference on Corrosion and Protection of Metals), AN SSSR, Moscow, 1958, pages 270-273.

4809. M. I. Ryabtsev, "Construction of Gas Pipe-Lines Systems in 1959-1965 and Their Protection from Corrosion," in the book: Zashchita... (See above 4729), pages 3-6.

4810. M. M. Salam-Zade and Z. I. Rudzskiy, "On Some Questions of Corrosion and Protection of Underground Communications," Izv. vyssh. uchebn. zavedeniy. Neft' i gaz, No 12, pages 131-134.

4811. A. Skuratov, "Ways to Liquidate Stray Currents (Combatting Corrosion of Underground Installations), ZHil-kommun. khoz-vo, 1957, No 7, pages 18-20. Bibliography of 5 titles.

4812. A. V. Solov'yev and P. G. Yanovskiy, "Anti-Corrosion Insulation of the Gur'yev-Koschalyl Water Pipe-Line," Vodosnabzh. i san. tekhn., 1939, No 3, pages 51-61.

4813. A. A. Spirin, V. S. Kal'man, M. M. Salam-Zade and N. A. Tsekun, Metodika elektricheskikh issledovaniy korroziionnogo sostoyaniya truboprovodov i kabeley (Method of Electrical Investigation of Corrosion State of Pipe-Lines and Cables), Aznefteizdat (Azerbaijani Petroleum Industry Publishing House), Baku, 1954, 180 pages with illustr.

4814. A. A. Spirin, N. A. Tsekun and M. M. Salam-Zade, Elektricheskaya zashchita podzemnykh metallicheskh sooruzheniy ot korrozii (Electrical Protection and Shielding of Underground Installations from Corrosion), Aznefteizdat (Azerbaijani Petroleum Industry Publishing House), Baku, 1954, 264 pages with illustr. Bibliography on pages 253-255.

4815. I. V. Strizhevskiy and D. K. Tomlyanovich, Bluzhdayushchiye toki i elektricheskiye metody zashchity ot korrozii (Teoriya i raschet) (Stray Currents and Electrical Methods of Protection and Shielding from Corrosion (Theory and Calculations)), Ministerstvo kommun. kh-va (Public Utilities Ministry), Moscow, 1957, 202 pages with drawings. Bibliography on pages 199-200 (40 titles).

4816. I. V. Strizhevskiy, "New Rules for Protecting Underground Metallic Installations from Corrosion," Elektrichestvo, 1959, No 3, pages 87-90.

4817. I. V. Strizhevskiy and D. K. Tomlyanovich, "On the Importance of Protecting Underground Metallic Installations in Event of Minimal Drainage Currents," Gorodskoye kh-vo Moskvyy, 1956, No 2, pages 23-25.

4818. I. V. Strizhevskiy, "Distribution of Potentials in the Rails-Earth-Underground Installations System in Drainage Shielding," in the Book: Teoriya... (See above 4732), pages 148-166.

4819. V. S. Tabukashvili, "Improve Protection of Underground Pipe-Lines from Corrosion," Neft. khoz-vo, 1952, No 5, pages 61-63.

4820. Teoriya... (See above 4732), Editor Prof. N. D. Tomashov, Dr. of Chemical Sciences, AN SSSR, Moscow, 1958, 274 pages with illustr. Bibliography at end of articles.

4821. D. K. Tomlyanovich, "Leakage Current from Rails Network of Electrified Transport and Analysis of Method of Limiting Its Amount," in the book: Teoriya... (See above 4732), pages 167-180. Bibliography of 2 titles.

4822. M. S. Trifel' and K. A. Aliyev, Opyt ekspluatatsii protivokorroziionnoy zashchity gazoprovodov (Experience of Operation of Anti-Corrosion Protection of Gas Pipe-Lines), GOSINTI, Moscow, 1959, 57 pages with illustr. Bibliography of 36 titles.

4823. V. S. Turkin, "Protection of Main Pipe-Lines from Corrosion," Str-vo predpr. neft. prom-sti, 1958, No 5, pages 5-8.

4824. V. S. Turkin, Novyye metody zashchity ot korrozii podzemnykh magistral'nykh truboprovodov. Soobshcheniye (Vsesoyuznoye soveshchaniye po stroitel'stvu) (New Methods of Protection of Underground Main Pipe-Lines from Corrosion. Communication (All-Union Conference on Construction)), Moscow, 1958, 18 pages with illustr.

4825. I. N. Ukrainets, "Experience at Increasing the Zone of Protection and Shielding of Pipe-Lines from Stray Currents," Str-vo truboprovodov, 1959, No 10, page 23.

4826. N. A. Tsekun, "On the Question of Establishing New Rules on Protection from Corrosion," Izv. vyssh. uchebn. zavedeniy. Neft' i gaz, 1958, No 8, pages 121-125.

4827. N. A. Tsekun, "Methods of Determining the Corrosion State of Pipe-Lines," Gor. khoz-vo Moskvy, 1950, No 10, pages 33-36.

4828. N. A. Tsekun, "Some Questions of Electrical Shielding and Protection of Underground Metallic Installations from Corrosion," in the book: Teoriya... (See above

4732), pages 79-90. Bibliography of 8 titles.

4829. N. A. Tsekun, "Centralization of Verification of Effectiveness of Action of Protective Devices in the Case of Electric Protection and Shielding of Underground Metallic Installations from Corrosion," Tr. Azer. industr. in-ta, Issue 20, 1958, pages 153-161.

4830. L. Ya. Tsikerman, Bor'ba s korroziyey podzemnykh metallicheskich truboprovodov (Combating Corrosion of Underground Metallic Pipe-Lines), Gos. izd. str. i arkh. (State Publishing House for Construction and Architecture), Moscow-Leningrad, 1951, 156 pages with drawings. Bibliography on pages 152-153.

4831. L. Ya. Tsikerman, "Some Questions of the Theory of Protection of Underground Metallic Pipe-Lines by Anti-Corrosive Coatings and Coverings," in the book: Zashchita... (See above 4729), pages 14-18, 6 figures.

4832. L. Ya. Tsikerman, "Theoretical Principles and Calculation of Anti-Corrosive Coatings of Underground Metallic Pipe-Lines," in the book: Teoriya... (See above 4732), pages 91-109. Bibliography of 6 titles.

4833. L. Ya. Tsikerman, Raschet protivokorroziionnykh izoliruyushchikh obolochek podzemnykh metallicheskich truboprovodov (Calculation of Anti-Corrosive Insulating Sheaths of Underground Metallic Pipe-Lines), izd. Ministerstva kommun. khoz. RSFSR (RSFSR Public Utilities Ministry Publishing House), Moscow, 1958, 128 pages with illustrations. Bibliography of 37 titles.

4834. A. Ya. Yakubovich and A. I. Zel'kovich, "New Anti-Corrosive Insulation of Steel Pipe-Lines with Asbocement," Neft. khoz-vo, 1937, No 8, page 48.

B) Cathode and Protector Shielding

4835. N. V. Besspalov and M. Ya. Yegorov, "Use of Communications Wires for Transmission of Electric Power to Line Stations for Cathode Shielding (of Oil and Gas Pipe Lines)," Str-vo truboprovodov, 1959, No 9, pages 7-11.

4836. K. I. Brodovich, "Cathode Shielding of Brine Piping from Soil Corrosion," Khim. prom-st', 1959, No 4, pages 75-77.

4837. I. S. Gerenrot and L. N. Yagupol'skaya, "Experience in Use of Wind Motors for Cathode Shielding on the Dashava-Kiev Gas Pipe-Line," Gazovaya prom-st', 1956, No 3, pages 32-34.

4838. V. I. Glazkov, V. G. Kotik and P. V. Doroshenko, "Experience in Use of Electrical Shielding of Main Pipe-Lines from Underground Corrosion," Trudy Vsesoyuzn. n.-i. in-ta po str-vu truboprovodov, Issue 8, 1956, pages 97-123. Bibliography of 8 titles.

4839. I. M. Yershov, Zashchita podzemnykh kabeley ot elektrokorozi (Protection of Underground Cables from Electrical Corrosion), Transzheldorizdat (Rail Transport Publishing House), Moscow, 1953, 76 pages with illustr.

4840. Instruktsiya po ustroystvu i ekspluatatsii protektornykh ustanovok dlya zashchity podzemnykh truboprovodov ot korrozii (Directions on Installation and Operation of Protector Installations for Protection of Underground Pipe-Lines from Corrosion," TsNIITENET', Moscow, 1956, 25 pages with illustr.

4841. Instruktsiya po ekspluatatsii ustanovok katodnoy zashchity magistral'nykh truboprovodov ot pochennoy korrozii vneshnim tokom (Directions on Operations of Cathode Shielding Installations for Main Pipe-Lines to Guard Them Against Soil Corrosion by External Current), Gostoptekhizdat (State Scientific and Technical Publishing House for Petroleum and Mineral Fuel Literature), Moscow-Leningrad, 1954, 28 pages.

4842. O. S. Kal'man, Elektricheskaya zashchita podzemnykh metallicheskiy sooruzheniy ot korrozii (Electrical Anti-Corrosion Shielding of Underground Metallic Installations), Narkomkhoz (People's Commissariat of Communal Economy), Moscow, 1940.

4843. Kompleksnaya elektrozashchita gazoprovoda Dashava-Kiev ot korrozii (Complex Electrical Anti-Corrosion Shielding of the Dashava-Kiev Gas Pipe-Line), izd. AN Ukr. SS R (Publishing House of the Ukrainian SSR Academy of Sciences), 1955, Kiev, 32 pages with illustr.

4844. V. G. Kotik, "Cathode Shielding Installations for Main Pipe-Lines," in the book: Teoriya... (See above 4732), pages 47-60. Bibliography of 8 titles.

4845. V. G. Kotik, V. I. Glazkov and P. G. Doroshenko, Elektricheskaya zashchita magistral'nykh truboprovodov ot korrozii (Electrical Anti-Corrosion Shielding of Main Pipe-Lines), Moscow, 1956, 68 pages with illustr. Bibliography at end of book.

4846. V. V. Krasnoyarskiy and Ye. A. Nikitenko, "Installation and Operation of Protector Installations on the Saratov-Moscow Gas Pipe-Line," Gazovaya prom-st', 1959, No 9, pages 42-46. Bibliography of 5 titles.

4847. V. V. Krasnoyarskiy and A. F. Lunev, "Protecting Underground Pipe-Lines from Corrosion Using Protectors," in the book: Teoriya... (See above 4732), pages 61-78. Bibliography of 14 titles.

4848. V. V. Krasnoyarskiy, "Design Solutions for Underground Pipe-Line Electrochemical Anti-Corrosion Protection Installations," (with Editor Comments), Str-vo truboprovodov, 1959, No 9, pages 11-14. Bibliography of 7 titles.

4849. V. V. Krasnoyarskiy and A. F. Lunev, Priimeneniye protektorov dlya zashchity podzemnykh truboprovodov ot korrozii (Use of Protectors for Shielding Underground Pipe-Lines from Corrosion), Moscow 1957, 17 pages with 24 figures and Bibliography of 6 titles (AN SSSR, filial VINITI, Topic 13, No M-57-322/21).

4850. V. V. Krasnoyarskiy, "Design of Protector Installations to Shield Underground Pipe-Lines from Corrosion," Gazovaya prom-st', 1957, No 10, pages 24-32, with illustr. Bibliography of 7 titles.

4851. A. F. Lunev and G. V. Akimov, "Protection of Metal Frames from Corrosion in the Soil Using Protectors," Izv. AN SSSR. OKhN, 1951, No 4, pages 361-369. Bibliography of 7 titles.

4852. A. F. Lunev and I. M. Yershov, "Design of Protector and Cathode Shielding of Underground Pipe-Lines and Armored Cables," in the book: Teoriya... (See above 4732), pages 36-46. Bibliography of 10 titles.

4853. V. N. Ostapenko, "On Some Equations of Cathode Shielding of Pipe-Lines," Ukr. matem. zh., Vol 9, No 4, 1957, pages 442-451.

4854. S. B. Perli, "Cathode Shielding of Pipe-Lines (from Corrosion)," Neft. kh-vo, 1939, No 4-5, pages 65-66.

4855. V. A. Pritula and M. Ya. Kolli, "Cathode Shielding of Pipe-Lines (from Corrosion)," Korroziya i bor'ba s ney, 1939, No 3-4, pages 132-136.

4856. V. A. Pritula and Yu. A. Smirnova, "Cathode Shielding of Pipe-Lines by Autonomous Anodes," Byull. stroit. tekhniki, 1948, No 5, pages 12-15.

4857. V. A. Pritula, Katodnaya zashchita truboprovodov i rezervuarov (Cathode Shielding of Pipe-Lines and Reservoirs), Gostoptekhizdat (State Scientific and Technical Publishing House for Petroleum and Mineral Fuel Literature), Moscow-Leningrad, 1950, 167 pages with illustr. Bibliography on page 166.

4858. V. A. Pritula, Katodnaya zashchita truboprovodov ot pochvennoy korrozii (Cathode Shielding of Pipe-Lines from Soil Corrosion), Gostoptekhizdat (State Scientific and Technical Publishing House for Petroleum and Mineral Fuel Literature), Leningrad-Moscow, 1945, 96 pages with drawings. Bibliography on pages 92-96 (112 titles).

4859. V. A. Pritula, Elektricheskaya zashchita ot korrozii podzemnykh metallicheskiy sooruzheniy (Electric Shielding of Underground Metallic Installations from Corrosion), Gosenergoizdat, Moscow-Leningrad, 1953, 239 pages with illustr. Bibliography on pages 231-234.

4860. I. N. Frantsevich, Ye. V. Khrushchova and T. F. Frantsevich-Zabludovskaya, Katodnaya zashchita magistral'nykh gazoprovodov. Fiz.-khim. parametry k proyektirovaniyu (Cathode Shielding of Main Gas Pipe-Lines. Physico-Chemical Parameters for Design), AN Ukr. SSR, Kiev, 1949, 80 pages with drawings. Bibliography on pages 77-79.

4861. I. N. Frantsevich, Ye. V. Khrushchova and T. F. Frantsevich-Zabludovskaya, Katodnaya zashchita

magistral'nykh truboprovodov (Cathode Shielding of Main Pipe-Lines), AN Ukr. SSR, Kiev, 1949, 80 pages. Bibliography on pages 77-79.

4862. I. N. Frantsevich, V. S. Chernovol and I. S. Gerenrot, Kompleksnaya elektrozashchita gazoprovoda Dashava-Kiev ot korrozii (Complex Electrical Shielding of the Dashava-Kiev Gas Pipe-Line from Corrosion), AN Ukr. SSR, Kiev, 1955, 32 pages with illustr. Bibliography of 13 titles.

4863. I. N. Frantsevich, V. S. Chernovol, I. S. Gerenrot, N. A. Pilipenko and L. N. Yagupol'skaya, "Complex Electroshielding of the Dashava-Kiev Gas Pipe-Line from Corrosion," in the Book: Problemy korrozii i zashchity metallov (Trudy 5-go Vsesoyuznogo soveshchaniya po korrozii i zashchite metallov. In-t fiz. khimii) (Problems of Corrosion and Protection of Metals (Proceedings of 5th All-Union Conference on Corrosion and Protection of Metals. Institute of Physical Chemistry)), AN SSSR, Moscow, 1956, pages 173-189. Bibliography of 13 titles.

4864. I. N. Frantsevich, I. S. Gerenrot and V. D. Kuz'menko, "Effectiveness of Action of Complex Electroshielding Facilities on the Dashava-Kiev Gas Pipe-Line," in the book: Zashchita truboprovodov ot korrozii. Nauchno-tekhnicheskiiy sbornik po gazovoy tekhnike (Protection of Gas Pipe-Lines from Corrosion. Scientific-Technical Anthology on Gas Equipment and Technology), GOSINTI, Issue 1, Moscow, 1959, pages 41-44.

4865. N. A. Tsekun, "Distribution of Potentials Along Pipe-Lines in Cathode Shielding," Energ. byull., 1956, No 10, pages 13-16. Bibliography of 5 titles.

4866. L. Ya. Tsikerman, K. K. Nikol'skiy, L. D. Razumov, Raschet katodnoy zashchity truboprovodov (Design of Cathode Protection for Pipe-Lines), Gosstroyizdat (State Publishing House for Construction Literature), Moscow, 1958, 142 pages with illustr. Bibliography of 35 titles.

PART III, SECTION 5

CORROSION AND PROTECTION IN
THE OIL-REFINING INDUSTRY

4943. R. Yu. Alekperova, A. P. Buzdakov, V. F. Negreyev and S. P. Yashin, "Examination of Corrosion of Steel in Layered Waters under High Pressures," Tr. Azerb. n.-i. in-ta po dobyche nefti, Issue 2, 1955, pages 420-421. Bibliography of 9 titles.

4644. L. A. Aleksandrov, "Study of the Causes of Corrosion in Cracking Installations and Methods of Combatting It," Neft', 1935, No 4, pages 15-17.

4945. L. A. Aleksandrov, V. P. Sukhanov and Z. I. Kal'nitskaya, "Methods of Combatting Corrosion in Cracking Equipment Using Reagents," Grozn. neftyanik, 1936, No 5, pages 45-51.

4946. E. N. Alikhanov, "Problems of Operation of Maritime Oil Installations," in the book: Trudy Vsesoyuznogo soveshchaniya po bor'be s morskoy korroziyey metallov, (Proceedings of the All-Union Conference on Combatting Sea-Water Corrosion of Metals), Baku, 1958, pages 5-13.

4947. L. A. Alyavdina, "Combatting Corrosion of Reservoirs Under the Action of Second Baku Petroleum and Cracking-Benzines," in the book: Trudy 2-oy konferentsii korrosii metallov (Proceedings of 2nd Conference on Corrosion of Metals), Vol 2, Academy of Sciences of the USSR, Moscow-Leningrad, 1943, pages 253-259. Bibliography of 7 titles.

4948. Yu. I. Archakov, Issledovaniye stoykosti staley, prinyayemykh v mashinakh i apparatakh neftyanoy i khimicheskoy promyshlennosti pri vysokikh temperaturakh i davleniyakh vodoroda (Examination of the Resistance of Steels Used in Machinery and Apparatus of the Petroleum and Chemical Industry at High Temperatures and Hydrogen Pressures), Author's Abstract of Dissertation in Competition for Degree of Candidate of Technical Sciences, Leningrad, 1959, 15 pages (Leningrad Engineering Institute im. Lensovet).

4949. G. A. Balalayev, "Combatting Corrosion of Apparatus in the Oil Processing Industry," Korroziya i bor'ba s ney, 1941,

No 3, pages 46-48.

4950. N. A. Bedritskiy, "Causes of Corrosion and Methods of Protection of Metallic Oil Reservoirs in Which Are Stored Petroleum and Petroleum Products," in the book: Trudy... (See above, 4946), pages 260-271. Bibliography of 8 titles.

4951. I. Ye. Besspalov and V. V. Alenev, "On Combatting Corrosion of Pans in Rectifying and Purifying Sections of Gas-Oil Factories," Nef. kh-vo, 1937, No 8, pages 25-28.

4952. N. Ye. Bulan and M. S. Arutyunov, "Examination of Corrosion of Metals in Oil Refineries," Neft. kh-vo, 1937, No 12, pages 21-25.

4953. N. A. Butkov and N. I. Dubroshtan, "Corrosion and Combatting It in Processing of Petroleum with High Sulphur Content," Vost. neft', 1940, No 4, pages 35-44.

4954. D. N. Bukh, V. F. Negreyev and Ye. A. Melikyan, "Chemical Methods of Combatting Corrosion of Oil Refining Apparatus: Report 1:" Azerb. neft. kh-vo, 1937, No 5-6 (185-186), pages 81-87. Bibliography of 7 titles.

4955. idem, idem: Report 2: Azerb. neft. kh-vo, 1937, No 7 (187), pages 61-64. Bibliography of 6 titles.

4956. S. I. Vol'fson, "Choice of Production Materials in Cracking Installations," Neftyanoye kh-vo, 1935, No 16, page 47.

4957. S. I. Vol'fson, "On the Question of the Methods of Checking on Corrosion in Oil Refineries," Zavodsk. laboratoriya, 1937, No 7, page 862.

4958. S. I. Vol'fson, "Materials for Hydrogenation Installations," Neftyanoye kh-vo, 1937, No 6, pages 35-44. Bibliography of 20 titles.

4959. S. I. Vol'fson, "On the Choice of Metal for Cracking Installations," Neft. kh-vo, 1935, Vol 28, No 5, pages 47-52. Bibliography of 17 titles.

4960. N. D. Gramenitskiy and V. Ye. Parkhomenko, "On the Corrosion of Oil Refining Apparatus," Neft. kh-vo, 1937, No 1, pages 63-66.

4961. M. S. Guseva, "Examination of Resistance of Certain Metals and Alloys in Conditions of Uninterrupted Refining of Resinous Tar," Korroziya i bor'ba s ney, 1938, Vol. 4, No. 1, pages 57-69. Bibliography of 10 titles.

4962. N. A. Kazak and V. V. Kolganov, "Protection Against Thunderstorm Discharges, Static Discharges and Corrosion in Oil Refineries and Chemical Factories of the USA (from foreign literature)," Energ. byull., 1956, No 6, pages 26-28.

4963. S. V. Kapatsinskiy, "Causes of Corrosion in Processing of Neftedag petroleum," Neft. kh-vo, 1937, No 2, page 46.

4964. N. G. Kasumzade, "Effect of Silicium on Increasing Corrosion Resistance of Chrome Nickel Steel for the Petroleum Industry," Trudy in-ta fiziki i matematiki (AN Azerb. SSR), Phys. Series, Vol 7, 1955, pages 21-32.

4965. N. G. Kasumzade, Prisadki kremniya k stali dlya bor'by s korroziyey neftezavodskoy apparatury Baku (Addition of Silicium to Steel to Combat Corrosion of Oil Factory Equipment), Baku, 1957, 113 pages with illustr. Bibliography of 70 titles. (Azerbaijani Petroleum Publishing House).

4966. A. G. Kovalev, Bor'ba s korroziyey neftyanykh skvazh v SShA (Combatting Oil Well Corrosion in the USA), State Scientific and Technical Publishing House of Petroleum and Mineral Fuel Literature, Moscow, 1959, 45 pages with illustr. Bibliography: 21 titles.

4967. B. A. Kostin, "Safety Equipment in Anti-Corrosion Operations in Maritime Oil Trade," in the book: Trudy... (See above 4946), pages 486-500.

4968. A. B. Kocharyan, "Laboratory Experiments on Corrosion of High-Chrome Pig Iron (Questions of Manufacture of Oil Refining Equipment)," Neft', 1936, No 7, pages 18-19.

4969. A. B. Kocharyan, "On Combatting Corrosion in the Condensing System of Oil Refinery Installations," Neft', 1936, No 3-9, page 25. Bibliography of 2 titles.

4970. K. Ye. Lavrovskiy, "Corrosion of Oil Refining Apparatus by Sulphurous Oils and Methods of Protection from Such Corrosion," Neft. kh-vo, 1937, No 2, page 39.

4971. P. S. Lisitsyn and A. B. Kocharyan, "On the Question of Combatting Corrosion of Factory Oil Refining Apparatus," Grozn. neftyanik, 1935, No 7-8, pages 45-56. Bibliography of 2 titles.

4972. P. S. Lisitsyn and A. B. Kocharyan, "Chemical Methods of Combatting Corrosion of Oil Refining Apparatus for Processing of Kalino petroleum," Grozn. neftyanik, 1936, No 5, pages 39-45. Bibliography of 13 titles.

4973. V. F. Negreyev, "Corrosion of Metals in Oil Bases, Neft. kh-vo, 1936, No 10, pages 27-32.

4974. V. F. Negreyev and L. Potolovskiy, "Corrosion of Equipment of Gas Lift Installations and Measures for Combatting It," in the book: Issledovaniye i khimich. pererabotka prirodnykh i iskusstvennykh neftnykh gazov (Examination and Chemical Processing of Natural and Artificial Petroleum Gases), Baku-Mosc 1935, pages 227-244.

4975. V. F. Negreyev, Korroziya oborudovaniya neftnykh promyslov (Corrosion of Oil Bases Equipment), Azerbaydzhan Petroleum Publishing House), Baku, 1951, 280 pages with illustr. Bibliography on pages 2710277 (175 titles).

4976. V. F. Negreyev and Ye. A. Andreyeva, "Corrosion of Steel in Layered Waters of Petroleum Deposits Under Static Voltage," Azerb. neft. kh-vo, 1951, No 5, pages 13-167. Bibliography of 15 titles.

4977. V. F. Negreyev and I. A. Iskenderov, "Corrosion of Steel Structures in Maritime Oil Bases and Their Protection," in the book: Trudy... (see above 4946), pages 82-101.

4978. A. Novik, "Corrosion of Piston Rods in Two-Cycle Dual-Action Motors," Dizelestroveniye, 1939, No 1, pages 27-28.

4979. N. I. Hyurenberg, "Stop Corrosion of Oil Refining Apparatus," Grozn. neftyanik, 1934, No 8, pages 33-34.

4980. P. S. Perminov and A. A. Putilov, "Corrosion of Metals in Cracking of Petroleum," Korroziya i bor'ba s ney, 1937, Vol 3, No 1, pages 7-37.

4981. Ye. S. Piliver, "Anti-Corrosion Metals for Wine-Making Apparatus Made by Soviet Industry," Vinodeliye i vinograd-arstvo SSSR, 1939, No 4, pages 27-31.

4982. I. S. Polyakov, "Organization of Combatting of Oil Refining Apparatus Corrosion in the USA," Neft. kh-vo, 1938, No 9, pages 39-41.

4983. Ya. A. Portnov, "Combatting Oil Refining Apparatus Corrosion," Neft', 1934, No 15, pages 14-15.

4984. L. Sel'skiy, "On Elimination of Corrosiveness of Cracking Benzines," Grozn. neftyanik, 1934, No 8, pages 45-49.

4985. P. A. Sentsov and L. F. Chadayeva, "Testing Crackin Benzines for Corrosion," Grozn. neftyanik, 1934, No 6-7, pages 37 40. Bibliography of 6 titles.

4986. S. M. Silakov, "Corrosion of Oil Refining Apparatus and Methods of Combatting It," Grozn. neftyanik, 1934, No 8, pages 35-41. Bibliography of 10 titles.

4987. S. M. Silakov, "Factors Contributing to Corrosion of Oil Refining Apparatus," Neft', 1934, No 17, pages 15-17.

4988. M. A. Solodov, "Corrosion of Metals in Extraction and Processing of Fergana Sulphurous Petroleums," Sotsgnauka i tekhnika, 1935, No 11, pages 41-47.

4989. B. L. Survillo, "Examination of the Consequences of Cooling of Gas Motors Scrubber Water (Corrosion of Pump Valve)," Vestn. inzh. i tekhn., 1936, No 1, pages 21-24.

4990. Ye. V. Tsekhnovitser and I. I. Zamoruyeva, "Corrosion in Oil Tankers. Effect of Kerosene, Benzine and Petroleum Both Singly and Together with Sea Water," Sudostroveniye, 1935, No 5(4), pages 41-45.

4991. L. Ya. Tsikerman, "Protection of Pressure Pipe-Lines, (Zashchita napornykh truboprovodov), Moscow, Ministry of Communal Economy of the RSFSR/Public Utilities Ministry, 1954.

4992. T. M. Shanina, V. I. Timofeyev, V. F. Negreyev, T. Ye. Kil'chevskaya and K. G. Gadzhiyeva, "Corrosion of Welded Seams of Maritime Oil Base Installations and Structures," in the book: Korroziya metallokonstruktsiy v more (Corrosion of Metal Structures in the Sea). Trudy n.-i. i proyekt. in-ta Gipromorneft' (Proceedings of the Research and Designing Institute "State Institute for Design and Planning of Maritime Oil Bases), Issue 1, Baku (Azerbaydzhan Petroleum Publishing House), 1954, pages 57-70. Bibliography of 14 titles.

4993. Z. L. Shenderov, Korroziya i korroziionnostoykiye metally v neftepererabotke (Corrosion and Corrosion-Resistant Metals in Oil Processing), Bashkniigoizdat (Bashkir Amalgamated Publishing House), Ufa, 1959, 84 pages with illustr. Bibliography on pages 82-83.

4994. V. B. Shneyerson, "Obtaining Sulfide Coatings in Aqueous Solutions of DS-Na for Purposes of Protecting Petroleum Equipment from Corrosion and Deterioration," Tr. In-ta nefti (AN SSSR), 1958, Vol 11, pages 294-311. Bibliography of 39 titles.

4995. A. Shchelchkov, "Corrosive Action of Petroleum Products," Vestn. kochegara (Stoker's Herald), 1937, No 3, page 31.

PART IV

CORROSION OF NON-METALLIC MATERIALS

1. Corrosion of Concrete, Reinforced Concrete and Cement Coverings

5034. A. N. Adamovich, "Alkalization of Cement Stone Under the Action of Rain Water," in the book: Korroziya betona i mery bor'by s ney (Trudy konferentsii 1956 g.) (Corrosion of Concrete and Means to Combat It (Proceedings of 1956 Conference)), AN SSSR, Moscow, 1954, pages 23-34. Bibliography of 15 titles.

5035. K. A. Adamchik, "On the Question of the Destruction of the Concrete of Maritime Installations in a Zone of Alternating Water Level and Means of Combatting Such Destruction," in the book: Korroziya betona i mery bor'by s ney (Trudy konferentsii, 1953 g.) (Corrosion of Concrete and Means to Combat It (Proceedings of 1953 Conference)), AN SSSR, Moscow, 1954, pages 227-230.

5036. I. A. Aleksandrov, "Corrosion of Reinforced Concrete," in the book: Trudy konferentsii po korrozii betona (Proceedings of a Conference on Corrosion of Concrete), Issue 1, AN SSSR, Moscow-Leningrad, 1937, pages 207-237.

5037. S. N. Alekseyev, "Corrosion of Reinforced Concrete Frames in the Hydrometallurgical Shop," Inform. byull. Tekhnika za shchity ot korrozii, 1957, No 3 (8), pages 29-31.

5038. V. P. Anan'yev, A. I. Konoplenko and A. K. Larionov, "Investigation of Corrosion of a River Bridge Support," Avtomobil'nyye dorogi, 1956, No 3, pages 15-16.

5039. V. S. Artamonov, Zashchita ot korrozii zhelezobetonnykh opor kontaktnoy seti (Anti-Corrosion Protection of the Reinforced Concrete Supports of a Contact Network), Moscow, 1958, 19 pages with illustr.

5040. V. S. Artamonov, "Corrosion Damage to Reinforced Concrete Bridges and Means to Protect Them," Vestn. Vsesoyuznogo n.-i. in-ta transporta, 1959, No 7, pages 32-35.

5041. P. P. Budnikov, "Results of 17 Years of Investigation of Questions of Corrosion," in the book: Korroziya... (See above 5035), pages 5-9.

5042. P. P. Budnikov, "On the Activity of Puzzolana Additives," in the book: Trudy k... (See above 5036), pages 145-180.

5043. P. P. Budnikov, "Sulphate-Slag and Anhydride-Alum Cements and Their Reaction to the Action of Aggressive Salts Solutions," in the book: Korroziya... (See above 5035), pages 150-164. Bibliography of 8 titles.

5044. Yu. M. Butt and K. G. Krut', "Corrosion of Slag Cements," in the book: Korroziya... (See above 5035), pages 178-186.

5045. V. L. Vinarskiy, "Protection of Concrete and Reinforced Concrete Reservoirs from Corrosion," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 2 (11), pages 12-15.

5046. V. A. Voskresenskiy, "On the Question of the Anti-Corrosion Protection of Metals and Concrete by a Film of BF-4 Glue," Nauchn. dokl. vyssh. shkoly. Stroitel'stvo, 1958, No 1, pages 172-174.

5047. Z. Sh. Garayev and A. A. Farkhadov, "Study of the Potential of Steel Under a Cement Protective Coating in Sea Water," in the Book: Korroziya metallokonstruktsiy v more. Tr. N.-i. i proyekt. in-ta "Gipromorneft'" (Corrosion of Metal Frames in the Sea. Proceedings of the "Gipromorneft'" Research and Designing Institute), Issue 1, Azneft'izdat (Azerbaijani Petroleum Industry Publishing House), Baku, 1954, pages 172-177. Bibliography of 1 title.

5048. N. A. Gol'denberg, "Experience at Manufacture of Acid-Proof Concrete Blocks," Inform. byull. po protivokorroziionnoy tekhnike, 1956, No 1, pages 5-7.

5049. R. Gryun, Leve and B. Lozer, Zhelezobetonnyye rezervuary (Reinforced Concrete Reservoirs), Gosstroyizdat (State Publishing House for Construction Literature), Moscow, 1933.

5050. M. Gulyamov and Yu. T. Tashpulatov, "Effect of Increased Doses of Plaster of Paris and SSB on the Corrosion Processes of Clayey Portland Cement," Dokl. AN UzSSR, 1957, No 8, pages 27-32. Bibliography of 12 titles.

5051. M. Gulyamov, Sul'fatostoykiye tsementy na baze portlandtsementa i obozhzhennykh malokaolinitovykh glin (Sulphate-Resistant Cements on a Base of Portland Cement and Burned Clays of Small Kaolin Content) (Author's Abstract of Dissertation in Competition for Academic Degree of Candidate of Chemical Sciences, Institute of Chemistry, AN UzSSR, Tashkent, 1956.

5052. G. K. Dement'yev, "Conditions for Longevity of Concrete, Reinforced Concrete and Insulation Coatings in Hydraulic Engineering Installations," in the book: Korroziya... (See above 5035), pages 44-47.

5052a. K. G. Dement'yev, Usloviya dolgovechnosti betona i zhelezobetona (Conditions for Longevity of Concrete and Reinforced Concrete), Kuyb. kn. izd. (Kuybyshev Publishing House), 1955, 120 pages. Bibliography of 69 titles.

5053. K. A. Demin, "Gas Pipe-Line of Fireproof Reinforced Concrete," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 4-5 (13-14), pages 43-45.

5054. Yu. V. Dereshkevich, "Use of Acid-Proof Concrete Blocks," Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 3(8), pages 3-5.

5055. S. I. Idashkin, "Gas-Permeability of Concrete as a Factor Occasioning Corrosion of Concrete in Installations," in the book: Trudy k... (See above 5036), pages 301-314.

5056. N. P. Il'ina and G. I. Skramtayeva, Tsementnyye izolyatsionnyye pokrytiya dlya stal'nykh pozemnykh truboprovodov uladyvayushchikhsya sposobom protalkivaniya (Cement Insulating Coverings for Steel Underground Pipe-Lines Laid Down by the Push-Through Method), Moscow, 1956,

22 pages with illustr.

5057. "Directions on Preparation and Use of Fire-proof Reinforced Concrete on Liquid Glass," Anthology of Technical Information: Technika zashchity ot korrozii, 1959, No 3 (17), pages 55-66.

5058. Issledovaniya v oblasti zashchity betona i drugikh stroitel'nykh materialov ot korrozii (Investigations in the Area of Protection of Concrete and Other Building Materials from Corrosion) (Anthology of Articles under Editorial Direction of Prof. V. M. Moskvina, Dr. of Technical Sciences), Gosstroyizdat (State Publishing House for Construction Literature), Moscow, 1958, 147 pages with illustr.

5059. V. V. Kind, "On the Question of the Influence of Chlorides on the Speed of Sulphate Corrosion of Portland Cement," Tsement, 1956, No 1, pages 3-6.

5060. V. V. Kind, "Corrosion of Concrete in Hydraulic Engineering Installations," in the book: Trudy k... (See above 5036), pages 113-144.

5061. V. V. Kind, Korroziya metallov. Korroziya betona pod deystviyem prirodnykh vod (Corrosion of Metals. Corrosion of Concrete Under the Action of Natural Waters), Moscow, 1953, 44 pages.

5062. V. V. Kind, "Some Questions and Problems in the Field of Corrosion of Hydraulic Engineering Concrete," in the book: Korroziya... (See above 5035), pages 35-43.

5063. L. S. Kogan, "Accelerated Method of Comparative Evaluation of the Chemical Resistance of Various Cements," in the book: Trudy k... (See above 5036), pages 189-206.

5064. A. S. Korzhuyev and P. Kh. Basenko, "Gunita for Protection of Metals from Corrosion," Stroitel. prom-st', 1950, No 4, pages 8-10.

5065. S. N. Korotkov, "Physico-Chemical Processes Occurring Upon Freezing of Young Concrete," in the book: Issledovaniya... (See 5058 above), pages 119-133. Bibliography of 19 titles.

5066. Korroziya... (See above 5035), editor P. P. Budnikov, Moscow 1954, 256 pages with illustr. Bibliography at end of reports.

5067. B. A. Kuvykin, "Corrosion of Concrete under Action of Aggressive Aqueous Media and Lock Water," in the book: Trudy K... (See above 5036), pages 61-111. Bibliography of 30 titles.

5068. M. A. Matveyev, "Electroinsulating Capacity of Solutions of Alkaline Inorganic and Organic Silicates," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 1 (10), pages 20-23.

5069. Ye. K. Machinskiy, "Effect of Mineral Oil on Concrete and Reinforced Concrete," Groz. neftyanik, 1937, No 6, page 51.

5070. A. I. Minas, "Corrosion of Concrete and Some Building Materials Used in Saline Soils in a Dry Climate," in the book: Korroziya... (See above 5035), pages 231-144 [??]. Bibliography of 14 titles.

5071. S. A. Mironov, "Frost-Resistance of Concrete and Its Fillers," in the book: Korroziya... (See above 5035), pages 74-85.

5072. V. M. Moskvina and N. A. Moshchanskiy, "Action of Alkalis on Concretes and Other Silicate Materials," in the book: Issledovaniya... (See 5058 above), pages 44-51. Bibliography of 5 titles.

5073. V. M. Moskvina and S. N. Alekseyev, "Protection of Armature Steel in Concretes of Various Types," in the book: Issledovaniya... (See 5058 above), pages 134-146. Bibliography of 2 titles.

5074. V. M. Moskvina, Korroziya betona (Corrosion of Concrete), Gos. izd. po str-vu i arkhitektуре (State Publishing House for Construction and Architecture), Moscow, 1952, 344 pages with illustr. Bibliography on pages 338-342.

5075. V. M. Moskvina, "Corrosion of Concrete in Hydraulic Engineering Installations," in the book: Korroziya... (See above 5035), pages 10-22.

5076. V. M. Moskvina, "Measures to Protect Concrete from Corrosion," Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 3 (8), pages 27-29.

5077. V. M. Moskvina and K. G. Krasil'nikov, "Determination of Aggressive Properties of Aqueous Medium for Concrete," Mashstroyizdat (State Publishing House for Machine Construction Literature), Moscow, 1950, 63 pages with illustr. Bibliography on page 61.

5078. V. M. Moskvina and I. I. Kurbatova, "Use of Luminescent Indicators for Study of Permeability of Building Materials," in the book: Issledovaniya... (See above 5058), pages 52-61. Bibliography of 5 titles.

5079. V. M. Moskvina and Ye. N. Alekseyev, "Resistance of Concretes in Event of Alternate Freezing and Thawing in Saline Solutions," in the book: Issledovaniya... (See above 5058), pages 25-43. Bibliography of 5 titles.

5080. V. M. Moskvina, "Conditions of Formation and Subsistence of Calcium Sulphoaluminate," in the book: Trudy k... (See above 5036), pages 31-59.

5081. N. A. Moshchanskiy, "Influence of Structure of Concrete on Its Resistance in Function of Time," in the book: Korroziya... (See above 5035), pages 63-73. Bibliography of 16 titles.

5082. N. A. Moshchanskiy, "Changes Wrought in the Water-Permeability and Resistance of Solutions and Concretes Upon Introduction of Ground Mineral Additives and Surface-Active Substances," in the book: Issledovaniya... (See above 5058), pages 5-19. Bibliography of 11 titles.

5083. N. A. Moshchanskiy and Ye. A. Puchnina, "Search for Protective Paint and Dye Coatings for Concrete," in the book: Issledovaniya..., pages 101-112.

5084. N. A. Moshchanskiy and Ye. A. Puchnina, "Silicofluoridation of Concrete as a Method of Heightening Its Compactness and Resistance," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 3 (12), pages 17-19.

5085. N. A. Moshchanskiy and Ye. A. Puchnina, "Resistance of Solutions, Porous Cement and Glass Under the Action of Gaseous Hydrogen Fluoride and Hydrogen

Chloride," in the book: Issledovaniya... (See above 5058), pages 20-24.

5086. Yu. A. Nilender, "Surface Endurance of Concrete and Its Connection with the Appearance of Cracks," in the book: Trudy k... (See above 5036), pages 255-300.

5087. S. D. Okorokov, "Dependence of the Sulphate Resistance of Cements on the Mineral Composition of the Clinker and the Nature of the Pozzolanizing Additive," in the book: Korroziya... (See above 5035), pages 165-177.

5088. I. Ye. Orlov, "Action of Aggressive Waters on Concrete and Quantitative Indices of Aggressiveness," in the book: Trudy k... (See above 5036), pages 7-29.

5089. A. F. Otten, "Corrosion of Iron in Concrete on a n Aggregate of Boiler Slag," Stroit. prom-st', 1940, No 2, pages 59-61.

5090. M. N. Plungyanskaya, "Waterproofing as a Method of Protecting Concrete, Tile and Other Porous Building Materials from Dampening," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 1 (10), pages 23-28.

5091. M. N. Plungyanskaya, "Protection of Porous Materials from the Action of Acids," in the book: Issledovaniya... (See above 5058), pages 93-100.

5092. M. N. Plungyanskaya, "Use of Protective Coatings to Protect Concrete and Other Porous Materials from the Action of Alkalis," in the book: Issledovaniya... (See above 5058), pages 81-92. Bibliography of 20 titles.

5093. "Resolution of the Expanded Conference on Corrosion of Concrete," in the book: Trudy k... (See above 5036), pages 325-334.

5094. "Resolution of Conference on Corrosion of Concrete and Measures to Combat It," in the book: Korroziya... (See above 5035), pages 251-255.

5095. M. A. Reshetnikov and I. V. Yefimovskiy, "Influence of Addition of Surface-Active Substances on Certain Physico-Chemical Properties of Cement Solution," in the book: Korroziya... (See above 5035), pages 208-217. Bibliography of 10 titles.

5096. I. Ya. Rivlin, "Corrosion of Iron Sheathed in Silicon-Calcite," Trudy Tallinskogo politekhnicheskogo instituta, Series A, No 59), Estonizdat, 1955, 15 pages.

5097. L. I. Rubenchik, Mikroorganizmy kak faktor korrozii betonov i metallov (Microorganisms as a Factor in Corrosion of Concrete and Metals), AN Ukr. SSR, Kiev, 1950, 65 pages. Bibliography of 80 titles.

5098. T. V. Rubetskaya and I. A. Yakub, "Reinforced Concrete and Concrete Frames in the Sulphuric Acid Industry," Inform. byull. Tekhnika zashchity ot korrozii, 1959, No 2 (16), pages 18-22.

5099. G. M. Rushchuk, "Evaluation of Frost-Resistance of Cement Solutions and Concretes According to the Dynamic Modulus of Elasticity," in the book: Korroziya... (See above 5035), pages 86-95. Bibliography of 4 titles.

5100. A. A. Sadovskiy, "On the Effect of Biological Factors on the Preservation of Concrete in the Sea," in the book: Trudy k... (See above 5036), pages 239-254.

5101. G. D. Salmanov, "Heatproof Concrete on Portland Cement for Temperatures Up To 1400-1500°," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 1 (10), pages 18-19.

5102. B. G. Skramtayeve and V. M. Moskvina, "On the Question of Corrosion of Fittings in Concrete Containing Calcium Chloride," Stroit. prom-st', 1938, No 8-9, pages 78-79.

5103. B. G. Skramtayeve and V. M. Moskvina, "Corrosion of Reinforced Concrete in Dryer Covers," Stroit. materialy, 1938, No 3, pages 19-20.

5104. B. G. Skramtayeve, S. M. Royak and M. I. Gershman, "Corrosion of Cements In Constant and Alternating Circumstances of Aggression," in the book: Korroziya... (See above 5035), pages 128-149.

5105. B. G. Skramtayeve, "Standardizing the Amount of Water for Concrete," in the book: Trudy k... (See above 5036), pages 315-322.

5106. D. E. Sorkina, "Use of Potash Glass to Increase the Corrosion Resistance of Acid-Proof Cements," Korroziya i bor'ba s ney, 1939, Vol 5, No 5-6, pages 24-33. Bibliography of 12 titles.

5107. D. E. Sorkina and Ye. S. Morozova, "Properties of Silicate Cement," Korroziya i bor'ba s ney, 1940, Vol 6, No 4, pages 23-27.

5108. V. V. Stol'nikov, "Influence of Physical Factors on Longevity of Hydraulic Engineering Concrete," in the book: Korroziya... (See above 5035), pages 52-62. Bibliography of 7 titles.

5109. M. I. Subbotkin, "Concretes with Heightened Corrosion Resistance," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 2 (11), pages 6-8.

5110. M. I. Subbotkin, "Corrosion of Concrete," in the book: Novyye stroitel'nyye materialy (New Building Materials), Sverdlovsk-Moscow, 1937, pages 110-148.

5111. M. I. Subbotkin, "Chemical Resistance of Slag Portland Cement," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 4-5 (13-14), pages 30-33.

5112. M. I. Subbotkin, "Chemical Resistance of Calcareous Slag Cements," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 3 (12), pages 19-23.

5113. Yu. T. Tashpulatov, "Salt-Resistant Cements for Hydraulic Engineering Installations on a Base of Portland Cement and Burned Kaolin Clay," in the book: Korroziya... (See above 5035), pages 187-207.

5114. M. K. Tikhonov, "On a Method of Investigating Corrosion of Mountings in Concrete," Zavodsk. laboratoriya, 1940, Vol 9, No 1, pages 113-115.

5115. M. G. Tolochkova, Izucheniye protsessov protekayushchikh pri sul'fatnoy korrozii portlandtsementa (Study of the Processes Occurring Upon Sulphate Corrosion of Portland Cement," Promstroyizdat (Industrial Construction Publishing House), Moscow, 1957, 26 pages with illustrs. Bibliography of 13 titles.

5116. B. D. Trinker and V. P. Plutenko, Zashchita ot korrozii zhelezobetonnykh ventilyatsionnykh i dymovykh trub, rabotayushchikh v usloviyakh agressivnykh gazov (Anti-Corrosion Protection of Reinforced Concrete Ventilation and Smoke Flues Operating in a Context of Aggressive Gases), TSBTI (Central Office of Economic Information), Moscow, 1959, 40 pages with illustr.

5117. B. D. Trinker and V. L. Plutenko, "On Longevity of Reinforced Concrete Ventilation Flues Operating in Aggressive Gaseous Media," Inform. byull. Tekhnika zashchity ot korrozii, 1959, No 2 (16), pages 13-18.

5118. B. D. Trinker, "Increasing the Longevity of Hydraulic Engineering Concrete by Additives of SSB," in the book: Korroziya... (See above 5035), pages 113-127. Bibliography of 18 titles.

5119. M. S. Trifel', G. G. Shakhtakhtinskaya and A. A. Farkhadov, "Interaction of Cathode Shield and Cement Coating," in the book: Korroziya metallokonstruktsiy v more (Corrosion of Metal Structures in the Sea), Tr. N.-i. i proyekt, in-ta "Gipromorneft'" (Proceedings of the "Gipromorneft'" Research and Design Institute), Issue 1, Aznefteizdat (Azerbaijani Petroleum Industry Publishing House), Baku, 1954, pages 250-259.

5120. P. P. Tsulukidze, "Some Types of Corrosion of Hydraulic Engineering Concrete Installations of Georgia," in the book: Korroziya (See above 5035), pages 218-226.

5121. G. G. Shakhtakhtinskaya, "On the Question of the Corrosion of Concrete and Mountings in the Caspian Sea," in the book: Trudy Vsesoyuznogo soveshchaniya po bor'be s morskoy korroziyey metallov (Proceedings of All-Union Conference on Combatting Maritime Corrosion of Metals), Baku, 1958, pages 426-477. Bibliography of 11 titles. "On Corrosion of Cement Stone in Caspian Sea Water," in the Anthology: Puti izucheniya gidrometeorol. rezhima i osvoyeniya akvatoriy neftyanykh promyslov Kaspiyskogo morya (Ways of Studying the Hydrometeorological Cycle and Development of the Aquatoria of the Caspian Sea Oil Fields), Azerb. un-t (Azerbaijani University), Baku, 1956, pages 47-55.

5122. S. V. Shestoperov, Dolgovechnost' betona (Longevity of Concrete), Avtotransizdat (Automotive Transport Publishing House), Moscow, 1955, page 477. Bibliography of 57 titles.

5123. Yu. S. Shidlovskaya, "Use of a New Method of Determining the Calcium Ion Concentration in Studying Corrosion of Cement in Salt-Water Media," Nauch. dokl. vyssh. shkoly. Stroitel'stvo, 1958, No 2, pages 197-199. Bibliography of 8 titles.

5124. L. A. Shtukovskaya, "Reading of Analyses of Water as a Medium for Concrete and Computation of the Quantitative Indices of Aggressiveness," Vodosnabzh. i san. tekhn., 1937, No 3, page 21.

5125. V. A. Shcherbakov, Korrozionnoye deystviye proizvodstvennykh stochnykh vod na betonnyye i zhelezo-betonnyye truboprovody (Corrosive Action of Industrial Sewage Waters on Concrete and Reinforced Concrete Pipe-Lines), Moscow, 1954, 32 pages. Bibliography on page 32.

5126. V. N. Yung, "Importance of Compactness of Cement Stone for Its Resistance to Aggression," in the book: Korroziya... (See above 5035), pages 48-51.

5127. I. A. Yakub, "Increasing Waterproofness of Concrete," Inform. byull. Tekhnika zashchity ot korrozii, 1959, No 2 (16), pages 23-27.

5128. L. F. Yankelev, "Protection of Steel by Concrete from Corrosion and Overheating (From Experience From Abroad)," Novaya tekhn. montazhnykh i spets. rabot v str-ve, 1959, No 3, pages 27-31.

2. Corrosion of Various Materials

5129. L. M. Ancharov, "Experience at Preparing from Faolite Equipment for Galvanizing Shops," Korroziya i bor'ba s ney, 1940, Vol 6, No 3, pages 56-58.

5130. P. A. Afanas'yev, A. F. Klimkova and N. F. Popova, "Asbestos Linings in Sulphuric and Nitric Acid Plants," Korroziya i bor'ba s ney, 1940, Vol 6, No 4, pages 34-42. Bibliography of 21 titles.

5131. I. N. Belyunova, "Technique of Impregnation and Use of Brick Impregnated with Coal Pitch," Korroziya i bor'ba s ney, 1939, Vol 5, No 5-6, pages 72-88. Bibliography of 15 titles.

5132. B. M. Bulygin, "Chemical and Mechanical Disintegration of Graphite Anodes in Various Hydroxyl (Water) Ion Discharge States," ZH. prikl. khimii, Vol 31, Issue 12, 1958, pages 1832-1836. Bibliography of 12 titles.

5133. N. Vvedenskiy, "On the Production of Textolite Pipes," Prom-st' organ. khimii, 1937, Vol 4, No 14, page 119.

5134. V. L. Vinarskiy, "Anti-Corrosion Protection of Foundations Under Equipment," Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 3 (8), pages 18-20.

5135. V. Ye. Volodin and I. V. Romov, "From the Practice of the Use of Sodium Silicate Solution in Anti-Corrosion Linings," Inform. byull. Tekhnika zashchity ot korrozii, 1957, No 3 (8), pages 5-12.

5136. A. Ganshin, "A New Acid-Proof Filler," ZH. rezin. prom-sti, 1935, page 1602.

5137. M. Ye. Grishin, "Silicate Acid-Proof Materials," in the book: Khimicheski stoykiye materialy (Chemically Resistant Materials), Moscow, 1939, pages 7-22.

5138. L. V. Yelin and A. A. Nazarenko, "Laminated Birchwood and Lignoston As Substitutes for African Guaiac," Vodnyy transport, 1939, No 12, pages 33-35.

5139. V. S. Ioffe, "On the Anode Process in Electrolysis of Aqueous Solutions of Alkaline Chlorides With Impregnated and Non-Impregnated Graphite Anodes," ZH. khim. prom-sti, 1936, Vol 13, No 11, page 668; No 12, page 784.

5140. B. N. Kaufman, "Alkali-Resistance of Roofing Materials," in the book: Issledovaniya... (See above 5058), pages 113-118. Bibliography of 2 titles.

5141. I. Ya. Klinov and D. I. Sychev, "On the Question of the Behavior of Silicate Plasters in Certain Aggressive Media," Korroziya i bor'ba s ney, 1938, Vol 4,

No 5-6, pages 370-383.

5142. I. Ya. Klinov, "Role and Importance of Carbon Graphite Materials," Sbornik Kom-ta po korrozii i zashchite metallov Vsesoyuznogo soveta nauch.-tekhn. o-v (Anthology of Committee on Corrosion and Protection of Metals of the All-Union Council of Scientific-Technical Societies), No 5, 1958, pages 3-7.

5143. A. S. Kononenko, "Increasing the Strength and Longevity of Brick," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 4-5 (13-14), pages 27-30.

5144. F. F. Koshelev and A. Ye. Kornev, "Corrosion Resistance of Rubbers at High Temperature in Function of the Vulcanization Group and Nature of the Active Filler," Kauchuk i rezina, 1958, No 3, pages 16-19. Bibliography of 12 titles.

5145. K. S. Kutateladze and M. Ya. Alasaniya, "Effect of Admixture of Gazhi on Corrosion-Resistance of Clinkers of Various Mineralogical Composition," Tr. Gruz. politekh. in-ta, 1955, No 5 (40), pages 114-123 (in Georgian with Russian Resume).

5146. M. A. Matveyev, "On Using Hydrosilicate Glass To Obtain Unburned Hydroxy Acid Resistant Sandy Articles," Inform. byull. Tekhnika zashchity ot korrozii, 1958, No 4-5 (13-14), pages 22-27.

5147. F. A. Matveyeva and Ye. A. Plekhanova, "Chemical Resistance of Ceramic Tiles on a Base of the Clays Coming from Doroginsk in Novosibirsk Oblast," Tr. khim.-metallurg. in-ta, Zap-Sib. filial AN SSSR, 1955, Issue 9, pages 19-36.

5148. V. S. Molchanov and N. Ye. Prikhid'ko, "Corrosion of Silicate Glass by Alkali Solutions, Report 1: Disintegration of Quartz, Quartz Glass and Certain Types of Instrument Glass by Solutions of Caustic Soda and Soda," Izv. AN SSSR. OKhN, 1957, No 10, pages 1151-1157. Bibliography of 9 titles.

5149. V. S. Molchanov and N. Ye. Prikhid'ko, "Corrosion of Silicate Glass by Alkali Solutions, Report 2: Ratio of Composition of Various Types of Glass to Their Resistance to the Action of Alkalis," Izv. AN SSSR OKhN, 1958, No 1, pages 3-7. Bibliography of 16 titles.

5150. V. S. Molchanov and N. Ye. Prikhid'ko, "Corrosion of Silicate Glass by Alkali Solutions, Report 3: Inhibitors of Alkali Corrosion of Glass," Izv. AN SSSR OKhN, 1958, No 7, pages 801-808. Bibliography of 16 titles.

5151. V. S. Molchanov and N. Ye. Prikhid'ko, "Corrosion of Silicate Glass by Alkali Solutions, Report 4: Disintegration of Glass by Solutions of Various Hydroxides," Izv. AN SSSR OKhN, 1958, No 8, pages 917-922. Bibliography of 13 titles.

5152. V. S. Molchanov and N. Ye. Prikhid'ko, "Corrosion of Silicate Glass by Alkali Solutions, Report 5: Influence of Alkali Concentration on Degree of Disintegration of Glass," Izv. AN SSSR OKhN, 1959, No 1, pages 3-8. Bibliography of 11 titles.

5153. V. S. Molchanov and N. Ye. Prikhid'ko, "Corrosion of Silicate Glass by Alkali Solutions, Report 6: The Phenomenon of 'the Soda Paradoxes,'" Izv. AN SSSR OKhN, 1959, No 6, pages 975-980. Bibliography of 16 titles.

5154. S. P. Nosakin and L. V. Gordon, "On the Question of the Resistance of Wood for Making Apparatus in the Acetic Acid Industry," ZH. khim. prom-sti, 1935, page 505.

5155. L. F. Pokrovskaya, "Carbon and Graphite Goods," Inform. byull. po protivokorroziionnoy tekhnike, 1956, No 1, pages 18-22.

5156. K. A. Polyakov, "Standardization of Silicate Acid-Proof Materials as Substitutes for Ferrous Metals," Vestn. standartizatsii, 1940, No 1, pages 3-5.

5157. L. Ya. Polyakov, "Cast Diabase as an Anti-Corrosive Material," Korroziya i bor'ba s ney, 1938, Vol 4, No 5-6, pages 429-491. Bibliography of 5 titles.

5158. M. N. Rubleva, "On the Possibility of Using Vinyl Plastic Piping for Water Pipes," Vodosnabzheniye i san. tekhn., 1956, No 1, pages 22-23.

5159. G. V. Sagalayeve, Antegmit i yego primeneniye (Antegmite and Its Use), Goskhimizdat (State Publishing House for Chemical Literature), Moscow, 1959, 88 pages

with illustr. Bibliography of 12 titles.

5160. Ye. M. Smol'yaninov, "Manufacture of Acid-Proof Bellows from Varnish Film," in the publication: Peredovoy proizvod.-tekhn. opyt (Progressive Production Engineering Experience), No T-56-517/13, 1956, pages 11-14.

5161. B. A. Trusov and V. D. Kikut, "Use of Graphite Tiles to Protect Heat Exchangers from Corrosion," in the book: Byull. po obmenu opytom v azotnoy prom-sti (Bulletin for Exchange of Experience in the Nitrogen Industry), No 9, Goskhimizdat (State Publishing House for Chemical Literature), Moscow, 1958, pages 39-40.

5162. M. Farberov and A. Gorina, "Rubber as an Anti-Corrosive Material," Zh. rezin. prom-sti, 1936, No 5, page 568.

5163. G. A. Frank, "Resistance and Measures to Protect Building Bricks in Circumstances of Alkali Corrosion," Prom. str-vo, 1959, No 7, pages 44-46.

5164. "Chemically Resistant Materials of Organic Origin," in the book: Antikorroziionnyye pokrytiya stroitel'nykh konstruktsey i apparatury (Anti-Corrosive Coatings and Coverings for Construction Structures and Apparatus), Gos. Izd. po stroitel'stvu i arkhitekture (State Publishing House for Construction and Architecture), Moscow, 1959, pages 25-45.

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